ASAHI SUNAC

Operation and Maintenance Manual

Dual electric field type powder handgun unit

Eco Dual Series

AXR Ⅱ-100/200DF
AXR Ⅱ-100/200ST
AXR Ⅱ-100/200FB

Ec'Coater™ エコーター

This manual contains important warnings and cautions.
Be sure to read this manual carefully before using this machine.
Always keep this instruction manual handy until the product is disposed of, if it is lost or soiled, request it from your dealer or us.

13th Edition: June 25, 2025

Introduction

Thank you for purchasing our product dual electric field type powder hand gun unit
< AXR II series >.

Please be sure to read this operation manual carefully before using this product so that you can always use it under the optimum conditions.
In particular, please fully understand the items in the specifications and use them according to the correct usage.

This product is used in combination with an electrostatic controller (BPS900m).
Be sure to read the operation manual of the electrostatic controller carefully.

If you have any questions, please contact us by clearly stating the "product number" and "serial number" and contacting us on the back cover.

Please keep this operation manual in a safe place where you can easily refer to it.

13th Edition: June 25, 2025

Content

13th Edition: June 25, 2025

1 For safe and correct use

Please understand the contents of this instruction manual and be sure to follow the handling method. If you use it without following this instruction manual, **you may injure your body or damage your equipment and fire.**

The following safety precautions should be considered as minimum basic safety measures when using our products.

●Precautions are displayed in the following two stages.

⚠ **WARNING**	Hazards that can result in death or serious injury.
⚠ **CAUTION**	Danger that may result in minor or moderate injury or physical damage only.

●Other important points are indicated as follows:

NOTE	Observations to ensure the equipment's performance and functions are fully operational.

In addition, please observe all national and local laws and regulations related to fire, electricity, and safety, as well as the rules and regulations of your own company or business division.

≪Range of use suitable for the product≫

This product is a manual powder spray gun unit designed to be installed in the coating booth equipped with an exhaust system and used for painting with powder paint.

If you use the product under conditions other than the above, it will be used improperly. Also, please be careful as it may cause an accident.

《Warning and precautions for safe use》

⚠ WARNING

Fire and explosion

Preventing fire and explosion in coating shop

- **Do not use halogenated hydrocarbon solvents.**
  The aluminum alloy contained in this product's components may undergo a chemical reaction and explode.

- **Do not use this product outside its specifications.**
  Using it out of specification range may result in a fire hazard.

- **Provide adequate ventilation with ventilation equipment.**
  Volatilized organic solvents and other substances may remain and ignite, creating a risk of fire.

- **Clean the coating room and exhaust system (ducts and fans) regularly.**
  If the accumulated powder simply peels off, a spark may occur, which could cause a dust explosion.
  In the unlikely event of a fire, paint residue etc. will make it easier for the fire to spread and result in greater damage.

Prevent fire and electric shock caused by faulty earthing

- **All conductive objects in the coating booth (paint containers, peripheral equipment, etc.) must be grounded with an earth wire.**
  In an atmosphere ionized by high voltage, poorly grounded conductors can become charged, creating a risk of fire or electric shock due to spark discharge.
  The earth should be **Class D grounding or higher** (ground resistance 100 Ω or less).

- **Always keep the workpiece earthed.**
  Risk of fire or electric shock due to spark discharge from charged workpieces.

- **The injector and paint hose must be grounded with an earth wire.**
  Static electricity can cause spark discharge, which can result in fire or electric shock.
  When paint flows through the injector and paint hose, static electricity is generated and becomes charged.

- **The main body be grounded with an earth wire.**
  Static electricity can cause spark discharge, which can result in fire or electric shock.
  The hand gun and electrostatic controller are also grounded via the main body, so make sure the ground wire is connected securely.

- **Be sure to periodically remove any paint that has stuck to the hanger.**
  If paint adheres to the contact part between the hanger and the object, there is a risk of fire or electric shock due to poor earthing.
  The ground resistance value should be 1kΩ or less for metal (1MΩ or less for resin) (measurement voltage should be 500V or more).

《Warning and precautions for safe use》

⚠ WARNING

Fire and explosion

Prevent fire and electric shock caused by faulty earthing

- **Do not place any items in the coating booth that are not necessary for coating.**
  Static electricity can cause spark discharge, which can result in fire or electric shock.
- **Paint operator must take precautions to prevent static electricity.**
  Static electricity builds up on the human body, causing sparks to discharge, which may result in fire or electric shock.

Prevent fires caused by ignition of paints and solvents

- **When nozzle cleaning, turn off the power to the electrostatic controller.**
  If high voltage is applied during nozzle cleaning, there is a risk of fire.
- **Do not bring any spark-producing devices, matches, lighters, etc.**
  Risk of explosion or fire due to ignition of flammable materials.

Equipment misuse

Preventing accidents caused by poor maintenance

- **Any abnormal noise, vibration or high voltage leakage, immediately stop operation.**
  Product damage may result in a fire hazard.
- **Do not operate if any parts are damaged or missing.**
  Product damage may result in a fire hazard.

《Warning and precautions for safe use》

⚠ WARNING

Human protection

Protection from high voltage

- **Please wear anti-static shoes.**
  Static electricity builds up on the human body, causing sparks to discharge which may result in fire or electric shock.

- **Do not touch anything other than the gun grip while high voltage is applied.**
  Touch with high voltage parts may result in electric shock.

- **The coating work floor must have an anti-static construction with a leakage resistance of 1 MΩ or less.**
  There is a risk of electric shock to the operator.
  The scope of the antistatic structure is the entire work floor in a closed paint room.
  In an open paint booth, it is the area surrounded by 1.5m on either side of the booth opening and 2.5m in front of it.
  To maintain the antistatic effect, clean the work floor when it becomes dirty.

- **Do not use this product if you have a pacemaker.**
  The high voltage of this product may cause pacemakers to malfunction or stop functioning.

Protection from solvents, air and paint pressure

- **Do not spray paint towards person**
  Harmful substances may cause serious injury, including inflammation and poisoning.
  Pressurized paint can cause personal injury.

- **Wear protective glasses, a protective mask, and protective gloves[*1] when handling paint.**
  Harmful substances may cause serious injury, such as inflammation or poisoning.
  Carefully read the safety data sheet (SDS[*2]) of the paint you are using and take appropriate exposure prevention and protective measures.
  *1 When using protective gloves for skin absorption protection or to prevent dirt, it is necessary to prevent static electricity from building up on the human body. Be sure to ground it properly. (Recommended protective gloves are those specified in JIS T8118, or earth bands, etc.)
  *2 SDS：Safety Data Sheet

- **Clean the coating room and exhaust device (ducts and fans) regularly.**
  If the exhaust device does not function properly, harmful substances may cause serious injury, including inflammation and poisoning.

《Warning and precautions for safe use》

⚠ WARNING

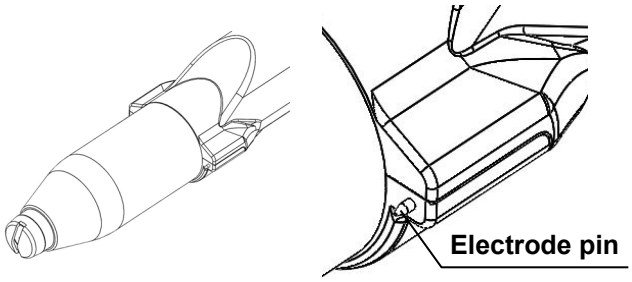
- **Do not use this product outside its specifications.**
  Using it out of specification range may result damage to the product.

- **Do not immerse the coating machine, connection/extension cable or hoses in cleaning solvent.**
  Electrostatic sprayer are electrical machines, immersing them in cleaning solvents may cause break down.

- **When cleaning the nozzle, never use a metal brush, use a bamboo brush or similar.**
  It may damage the nozzle and result in poor coating.
  The nozzle is an important part of the sprayer.
  If you use a metal brush to damage the nozzle, it will become difficult to maintain uniform spray conditions.

- **Check frequently for paint leaks, air leaks, and loose screw.**

- **Do not touch the electrode pins of the spray gun carelessly.**
  The electrode pin may pierce the body and cause injury.
  Be careful when handling the electrode pin as they are easily pierced.



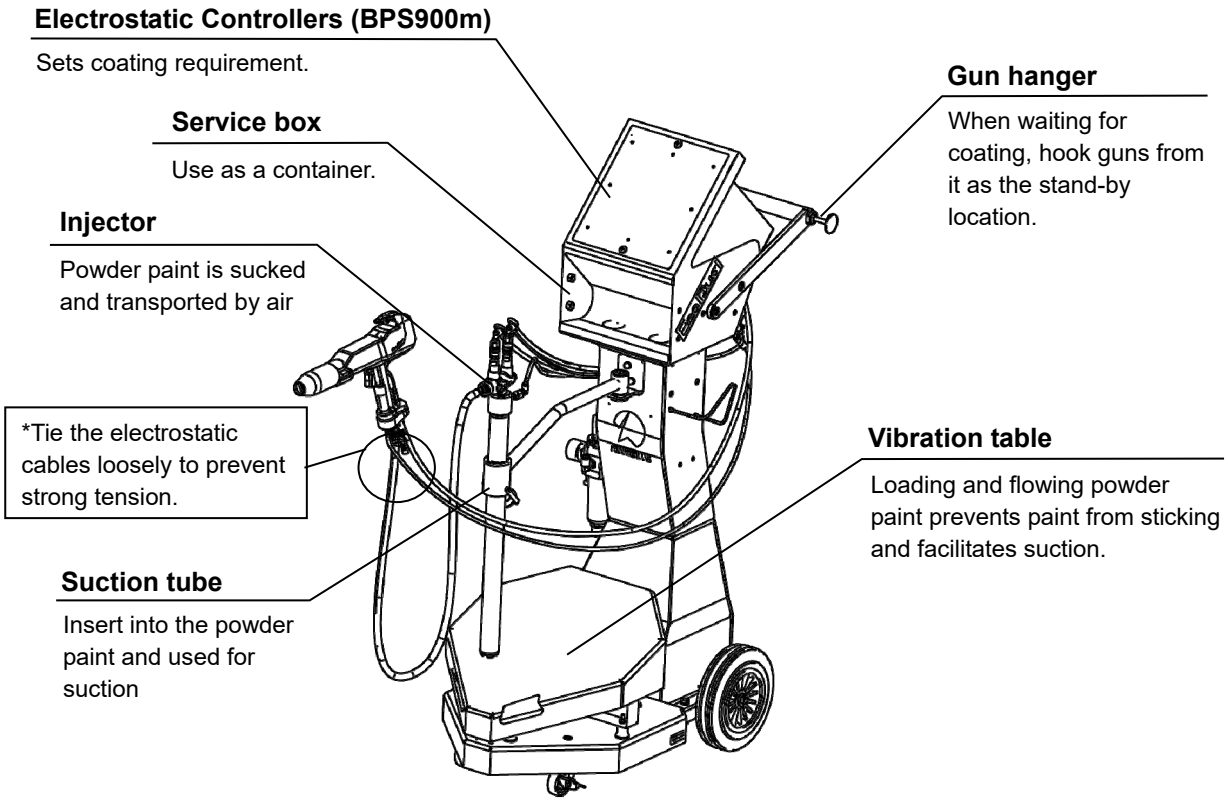
●**A fire extinguisher should always be kept near the work area.**
In case of a fire, make sure to have equipment that has been regularly inspected installed at all times.

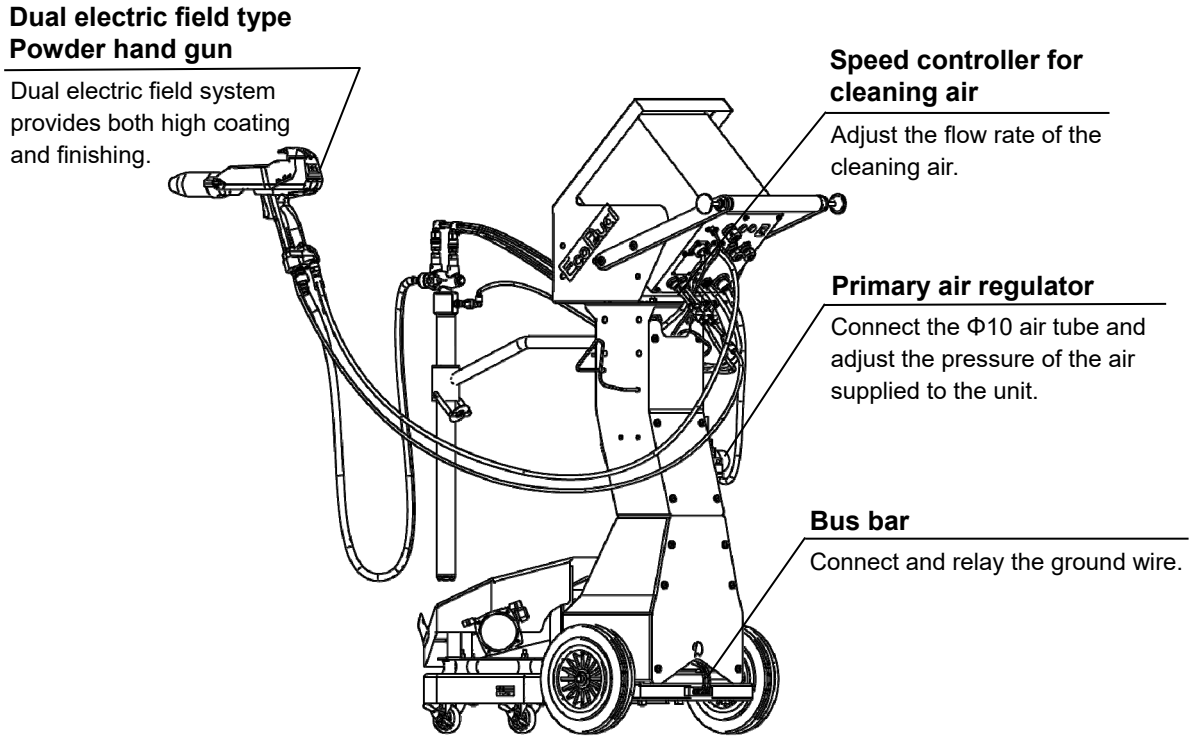
●**When disposing of this product, please dispose of it in accordance with the laws of your country.**

2 Equipment Overview

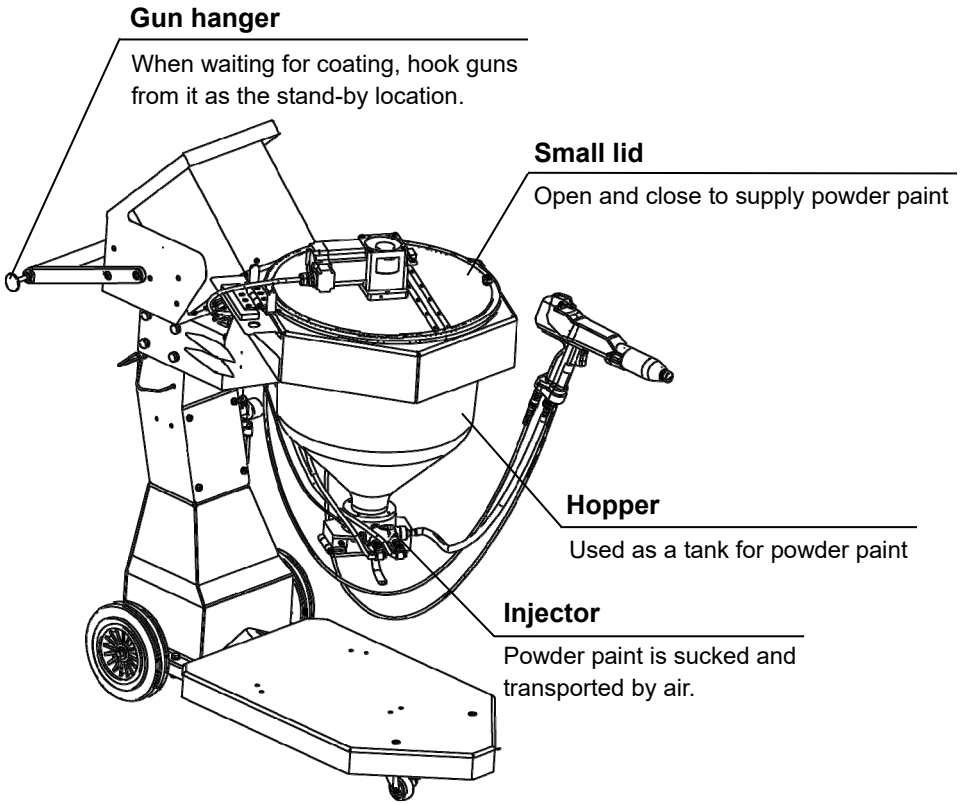
2.1 Part Names and Roles

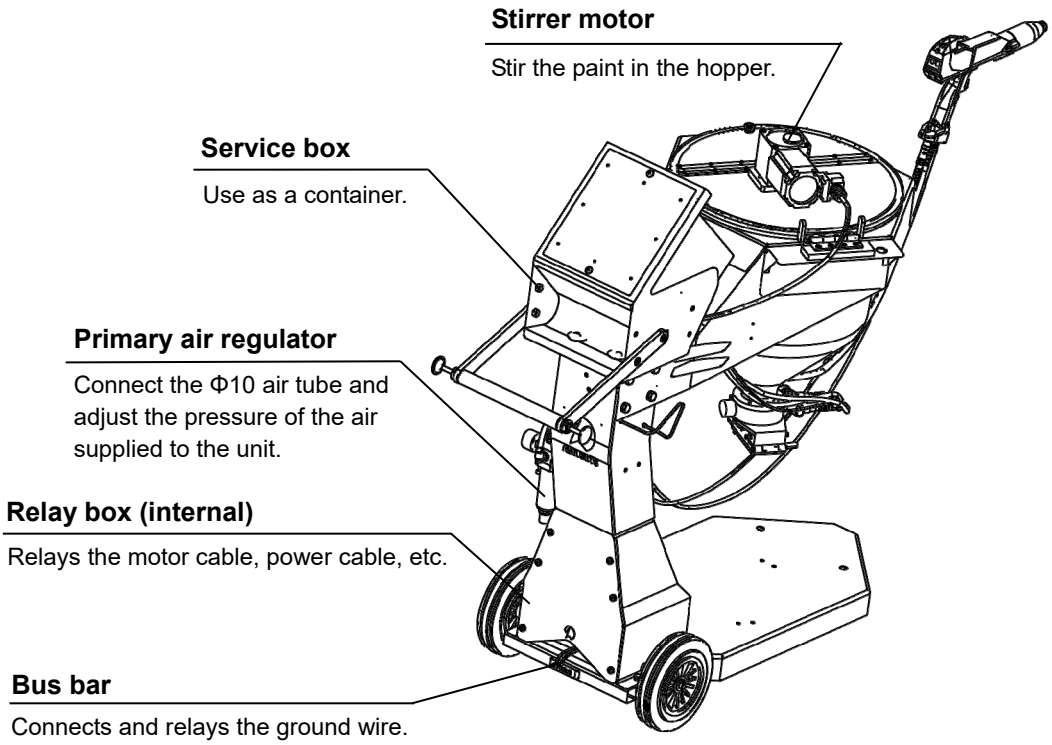
(1) AXR II-100DF (partial flow type. Easy to install, suitable for applications that require a lot of color-changing and cleaning)



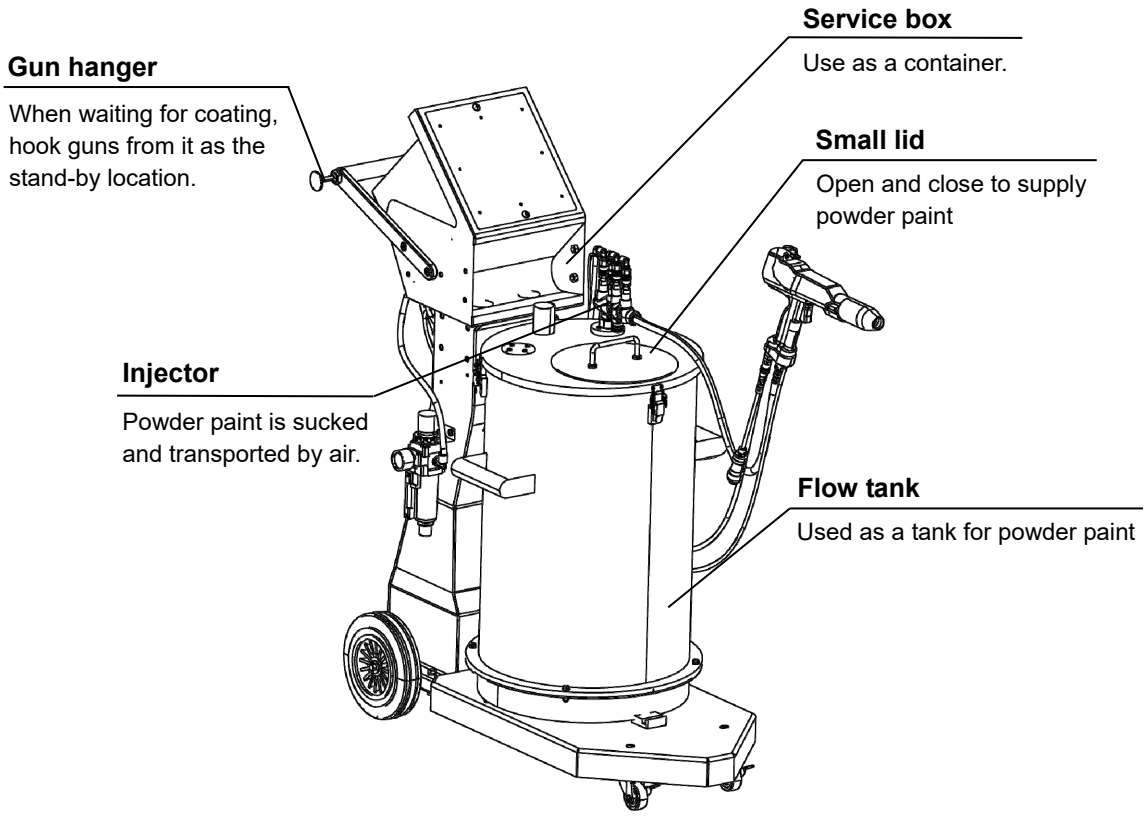


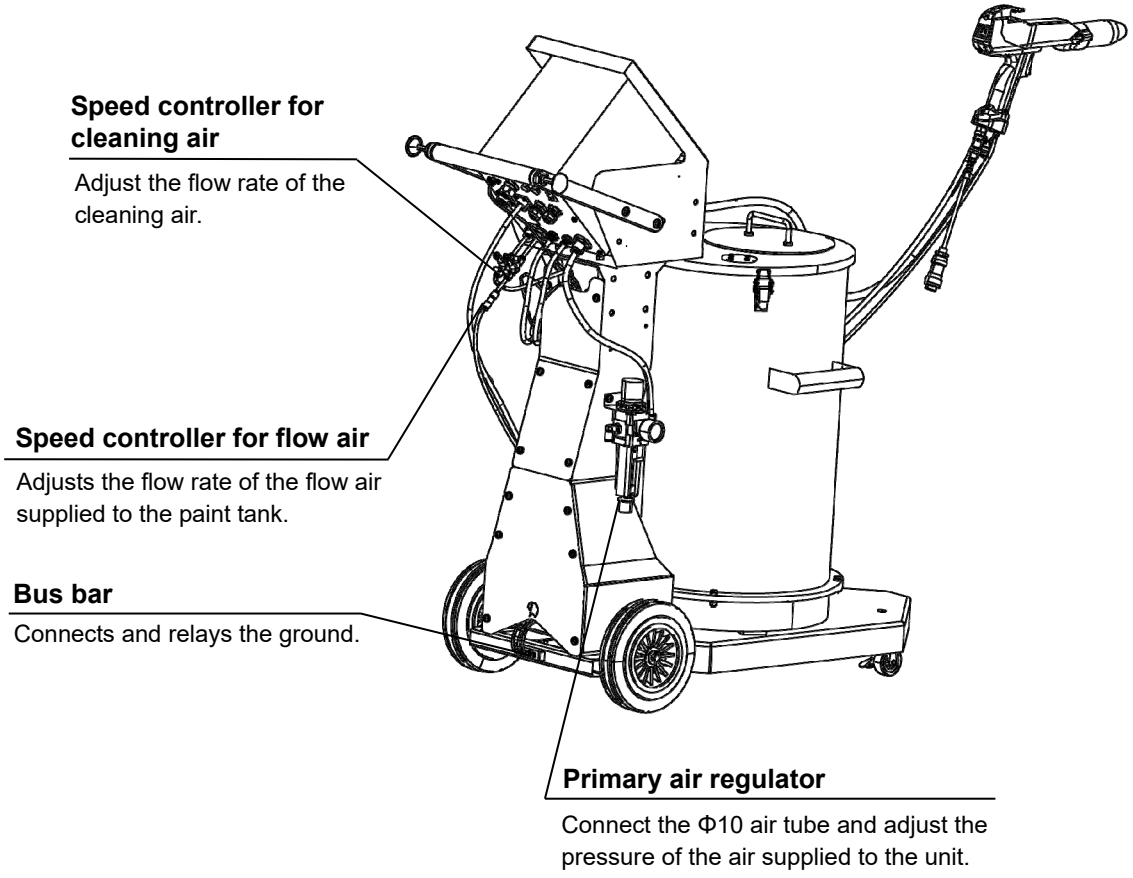
(2) AXR II-100ST (Stirring hopper type. Suitable for paints with poor fluidity and applications that require discharge stability)





(3) AXR II-100FB (flow tank type. Suitable for single color coating and applications that require discharge stability)

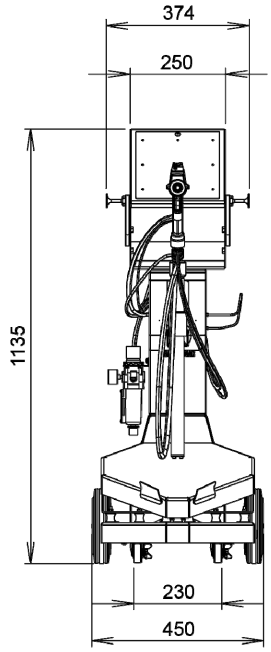


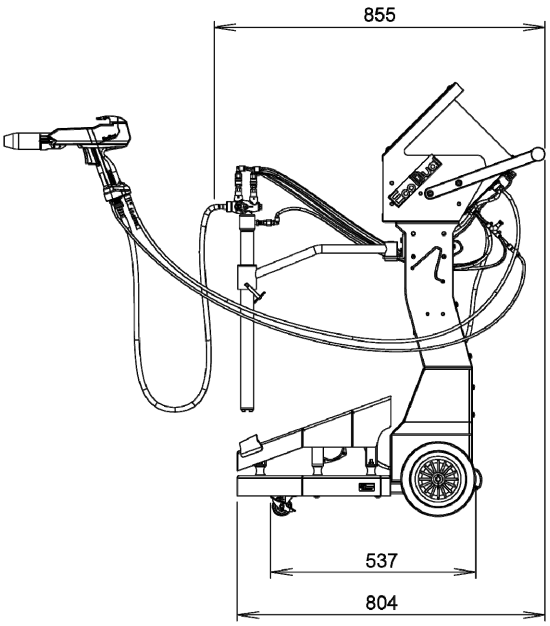


3 Specifications

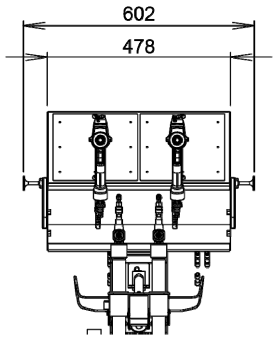
3.1 External Dimensions

(1) AXR II-100/200DF

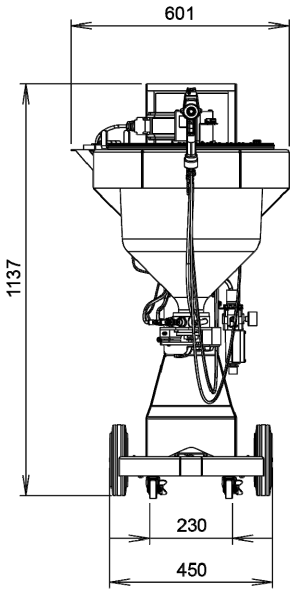


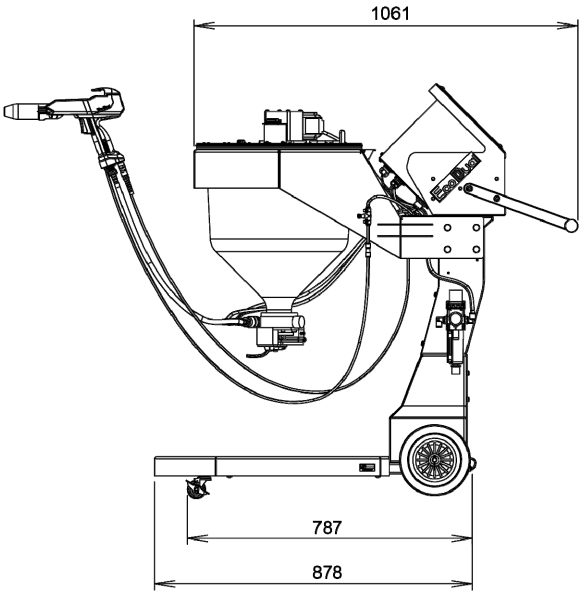


AXR II-200DF head section

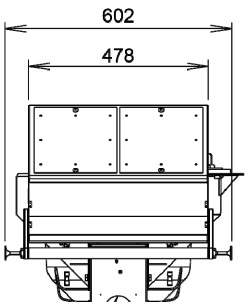


(2) AXR II-100/200ST

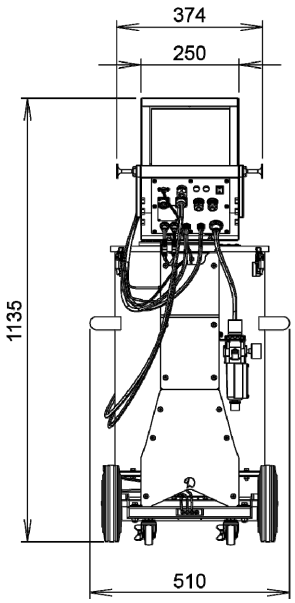


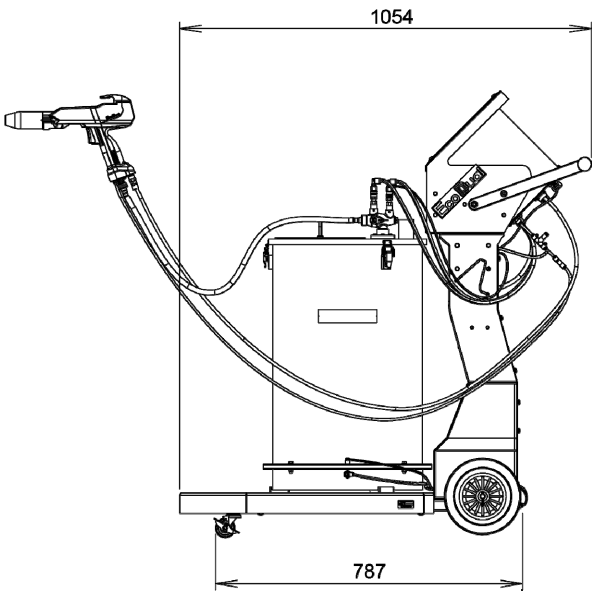


AXR II-200ST head section

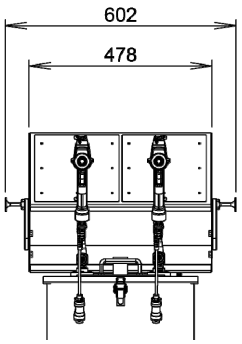


(3) AXR II-100/200FB





AXR II-200FB head section



3.2 Product Specifications

Series name	Eco Dual					
Name	Dual electric field type powder handgun unit					
Type	DF: Partial flow (paint box installed)		ST: Stirring hopper		FB: Flow tank	
Model	AXR II-100DF	AXR II-200DF	AXR II-100ST	AXR II-200ST	AXR II-100FB	AXR II-200FB
Part Number	46153	46156	46154	46157	46155	46158
Number of guns	1	2	1	2	1	2
Adaptive paint	Powder paint					
Input power	Single phase AC 100 V (50/60 Hz)					
Air port size	Φ10 mm					
Input air pressure	0.5 to 0.6 MPa (Recommended dynamic pressure: 0.5 MPa)					
Powder flow rate (per gun)	50 to 350 g/min (varies depending on paint properties and powder hose specifications.)					
Current consumption	0.7 A	1.2 A	1.0 A	1.5 A	0.5 A	1.0 A
Max. air consumption	270 L/min (ANR)	540 L/min (ANR)	270 L/min (ANR)	540 L/min (ANR)	270 L/min (ANR)	540 L/min (ANR)
Mass	43 kg	53 kg	63 kg	73 kg	53 kg	63 kg

Supply air conditions

JIS B8392-1:2012		Quality class 162	Quality class 131
Contained Solid particle (per 1 m^3) *Particle diameter: d	0.1 μm < d ≤ 0.5 μm	20,000 or less	20,000 or less
	0.5 μm < d ≤ 1.0 μm	400 or less	400 or less
	1.0 μm < d ≤ 5.0 μm	10 or less	10 or less
Moisture content (g/m^3)		1.37 or less (Dew point at atmospheric pressure -17°C)	0.144 or less (Dew point at atmospheric pressure -42°C)
Oil content (mg/m^3)		0.1 or less	0.01 or less

* Compressed air quality rating of 162 or higher is available for our coating equipment. (Quality class 131 is recommended).

4 Preparation for Operation

4.1 General Precautions Before Operation

⚠ WARNING

There is a risk of sparking, which may cause a fire.

- **Ungrounded metal objects can become charged and present a risk of sparking.**
- **Do not place unnecessary metallic objects, such as tools, in coating booths.**
- **Ensure that metal objects, such as stands and safety fences, in the booth are properly grounded.**

Electrostatic discharge may cause an electric shock.

- **Do not directly touch the object to be coated or the metal inside the booth. Insufficient grounding may result in electric shock.**
- **People engaged in electrostatic coating work or those who work near it should wear electrostatic shoes and clothes to prevent static electricity from accumulating. In addition, grip the gun grip with bare hands during coating operation.**

Breathing problems and poisoning may occur.

- **Powder paints contain hazardous ingredients that can adversely affect the human body or cause dust damage.**
- **Wear appropriate dust masks, protective clothing, dust-proof clothing, and dust-proof goggles when operating, repairing, or cleaning the equipment.**

⚠ CAUTION

If any signs of failure appear, such as malfunction or defect, investigate within the specified maintenance work range. If you are unsure of the cause of the problem, do not continue maintenance and inspection and contact us promptly for proper and reliable repair.

4.2 Preparing Coating Equipment

Before starting to use the equipment, follow the steps below to prepare it for use.

NOTE

Carefully read the instruction manual (separate volume) of "Dual-electric-field type powder handgun ECDm".

Before starting the work, be sure to read the instruction manual of the hand gun thoroughly and fully understand the contents, and perform the following operations.

NOTE

Carefully read the instruction manual (separate volume) of the "Electrostatic Controller BPS900m".

Before starting work, be sure to read the instruction manual for the electrostatic controller thoroughly and fully understand the contents, and perform the following tasks.

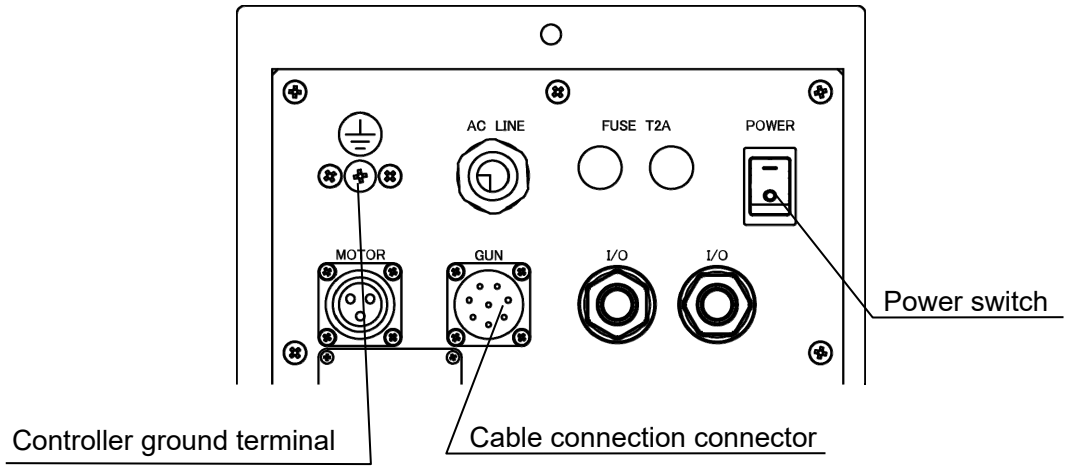
⚠ WARNING

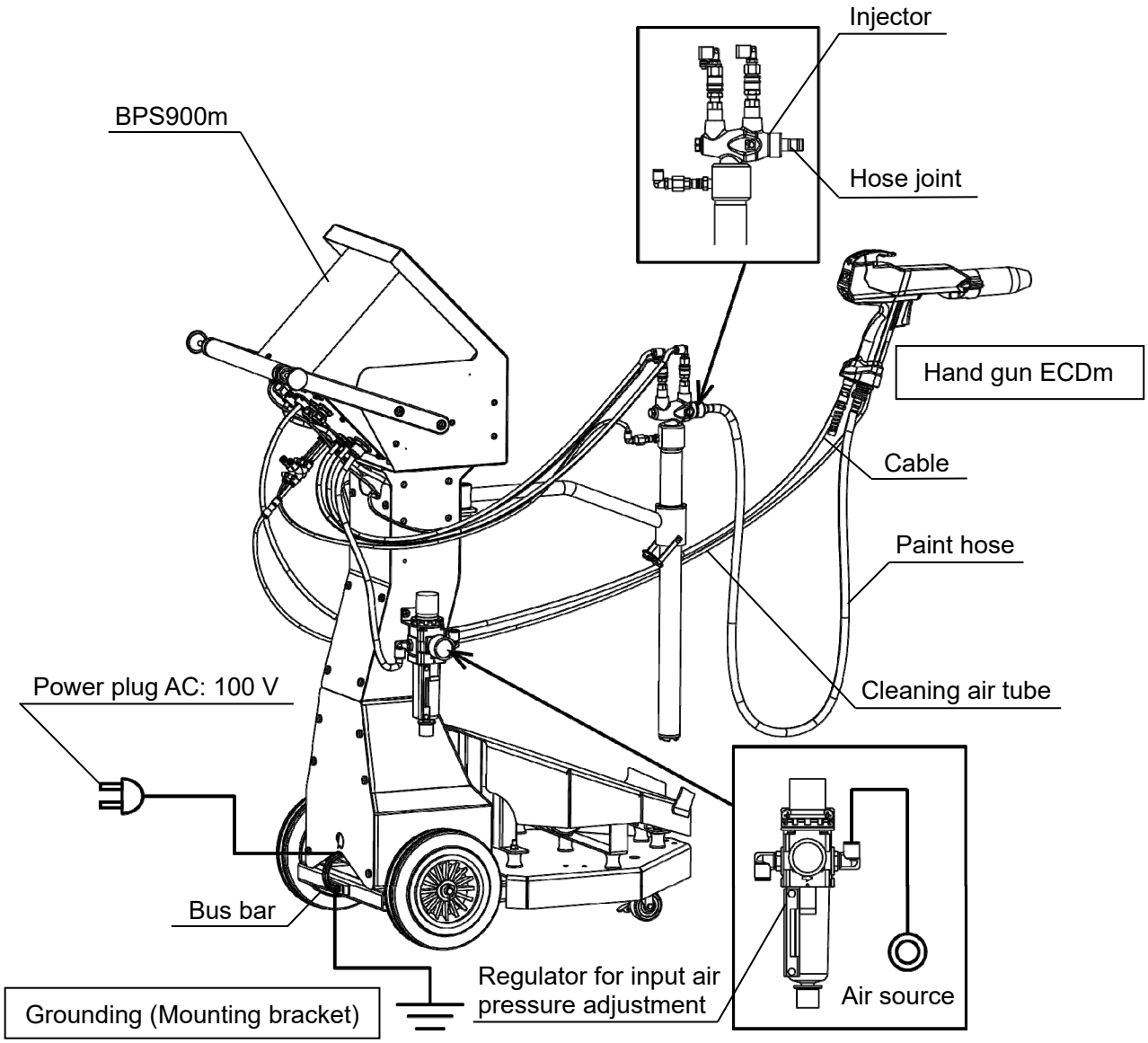
Failure to do so may result in personal injury or accidents due to unexpected movement of coating unit.

When setting coating unit, be sure to turn ON the stopper of the wheels and perform the work with the coating unit fixed.

4.3 Connecting Diagram of Coating Device and Hand Gun

BPS900m upper back part



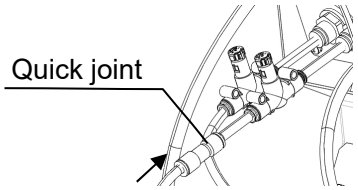


*The figure shows AXR II-100DF.

4.4 Connecting Coating Devices

(1) Grounding
- Make sure that the controller ground terminal and the busbar are connected with a ground wire.
- Securely attach the mounting bracket attached to the end of the ground wire coming out of the bus bar to Class D grounded booth or a steel structured pole with a grounding resistance of 100 Ω or less to ground it.

(2) Connecting the Air Tube
- Connect the tube (Φ10) of the supply air to the air source.
- Connect the cleaning air tube (Φ6) to the quick joint. Connect the other end to the grip on the hand gun ECDm.

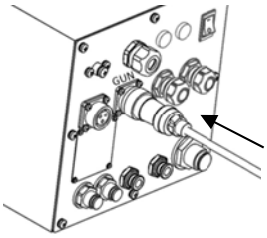


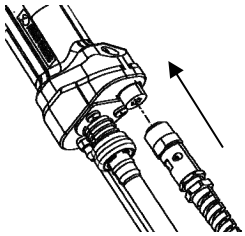
⚠ WARNING

Injury to human body or accident may be caused by the spouting of compressed air.

Be sure to check that the air tube connection is not loose.

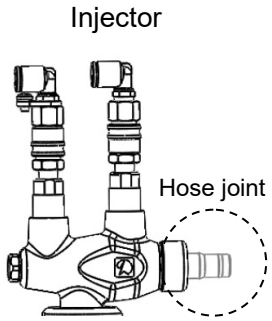
(3) Gun cable connection
- Connect the cable to the back of the electrostatic controller (GUN). Connect the other end to the handgun ECDm.

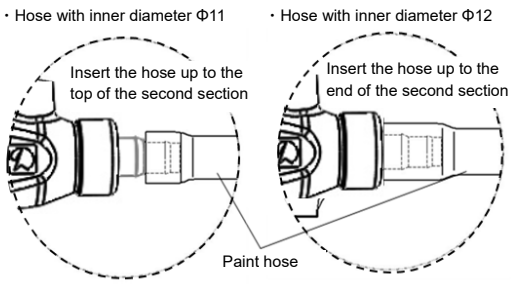




4.5 Paint Hose Connection

(1) Paint hose connection
Connect the paint hose to the handgun ECDm. Connect the other end to the hose joint of the injector and insert it to the position specified below.





⚠ CAUTION

Disconnection of paint hose or paint leakage from joints may occur during coating operation

Be sure to insert bore size Φ12 hose (P/N: 641-0000) to the back of the second section of the hose joint.

⚠ CAUTION

Doing so may deform or damage the paint hose.

Be sure to insert bore size Φ11 hose (P/N: 640-0000) up to the front of the second section of the hose joint.

⚠ WARNING

Doing so may lead to dust-related problems or dust explosions.

- **Do not disconnect the hose during paint transfer. Otherwise, there is a risk of spouting.**
- **Be sure to check that the paint hose is inserted firmly to the specified position.**

4.6 Connecting Primary Air

(1) Checking the regulator for input air pressure adjustment
Check that the regulator for input air pressure adjustment is closed (the pressure adjustment knob is turned fully counterclockwise).

(2) Connecting the primary air supply tube
Supply compressed air that meets the requirements of powder coating to the joint (IN-side: Φ10) of the regulator for input air pressure adjustment. [Refer to section 3.2]

⚠ CAUTION

The device may be damaged.

1. If the coating equipment is used by connecting to an air source of 0 MPa or more, the pressure gauge attached to each regulator may be damaged.

4.7 Supplying Primary Air

- Adjustment of primary air pressure
Turn the pressure adjusting knob of the filter regulator clockwise to adjust the primary air pressure to 0.50 MPa (dynamic pressure). (Standard static pressure: about 0.52 MPa)

NOTE

This affects the discharge volume of powder paint and the discharge air volume.

Set the primary air pressure to 0.50 MPa (dynamic pressure).
To prevent damage to the electrostatic controller, keep the pressure at the primary side on 0.6 MPa or less at the most.
If the air pressure at the primary side is 0.5 MPa or less, the discharge amount will decrease and/or the discharge will become unstable.

4.8 Connecting the Primary Power Supply

(1) Check that the power switch of the electrostatic controller is OFF.

⚠ WARNING

Failure to do so may result in personal injury or an accident.

Be sure to turn OFF the power switch of the electrostatic controller when connecting the primary power supply.

(2) Connecting the Primary Power Cable
Insert the power plug of the primary power cable into a power outlet with the specified voltage (AC100 V).
Keep coating unit and coating workspace at least 5 m away from the power outlet.

5 To Check the Operation

Follow the procedure below to check the operation of the equipment before starting use and test operation.

NOTE

Please note that paint may be discharged if the operation is checked as described below while the injector and suction tube are in the paint box, stirring hopper, or paint tank.

5.1 Voltage Application to the Handgun

(1) Turn on the power switch of the electrostatic controller.
- Confirm that the model code lights on the gun application voltage display LED. (Model code C: DF unit, Model code S: ST unit)

(2) Set the gun voltage to 80 kV.

NOTE

Please refer to the Operation Manual of the Electrostatic Controller BPS900m for the setting of the gun applied voltage and gun current.

(3) Keep the tip of the hand gun at least 500 mm away from peripheral devices.

⚠ CAUTION

If the tip of the hand gun is brought close to the electrostatic controller during high voltage application, the electrostatic controller may be damaged.

(4) Pull the gun trigger.
- Check that the gun current is flowing 50 to 60 μA.

[When the error LED blinks and "01" is displayed on the operation time display (error history)]
- Check that the cables are securely connected to the electrostatic controller and handgun.
- Check that the cable is not broken. In case of abnormality, refer to "Chapter 10".

⚠ CAUTION

Make sure that the ground wire is securely connected before pulling the gun trigger. If the gun trigger is pulled and high voltage is applied while the ground is not connected, the electrostatic controller may be damaged.

5.2 Checking the Air Circuit

(1) Set the measurement mode (press the Measure button).

⚠ WARNING

<u>High voltages may lead to personal injury.</u>

Be sure to set the electrostatic controller to the measurement mode before checking the air circuit.

(2) Check that Measure on the controller panel is lit.

NOTE

For details on how to set the flow rate and air volume, refer to the Instruction Manual for the Electrostatic Controller BPS900m.

(3) Pull the gun trigger.
- Check that air is being discharged from the tip of the hand gun.

6 Preparing for Coating

6.1 Installation of Paint Box on DF Vibration Table (DF Specification Only)

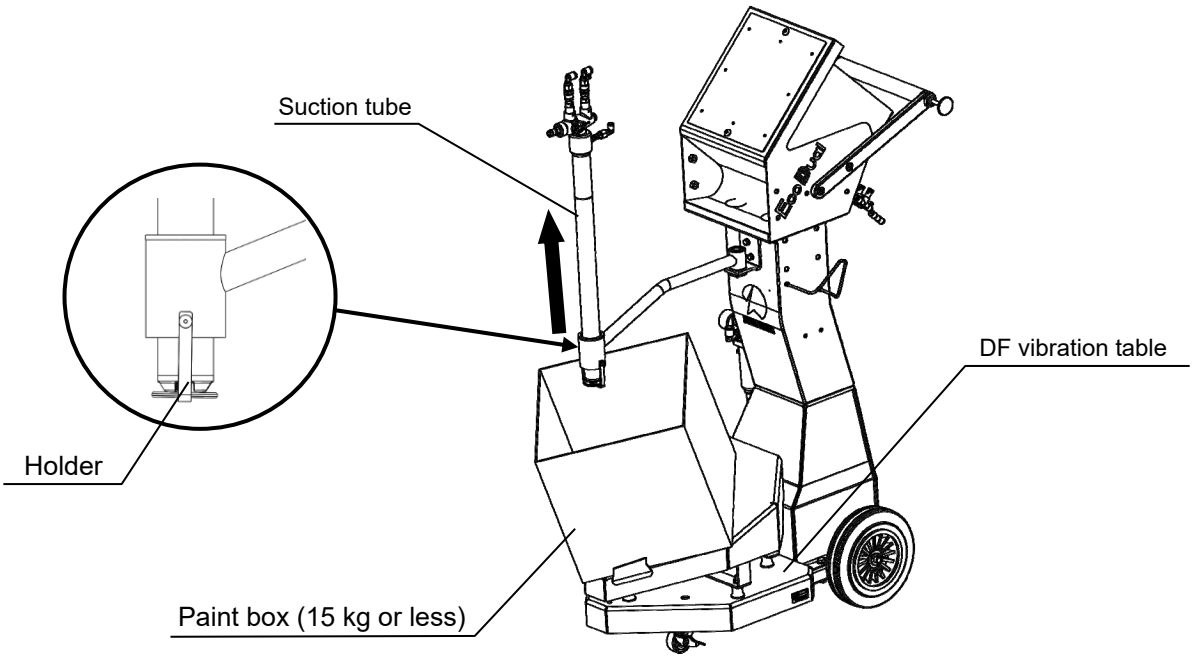
(1) Check that the power switch of the electrostatic controller is OFF.

⚠ WARNING

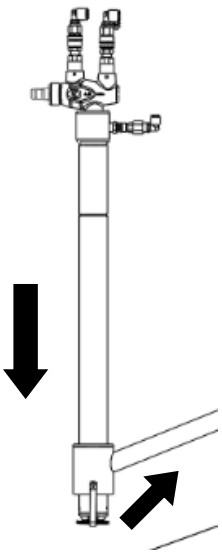
Failure to do so may result in injury or an accident due to unexpected motion.

When installing powder paint on the DF vibration table, be sure to check that the power switch of the electrostatic controller is OFF.

(2) Open the paint box. After softening the paint sufficiently and pulling up the suction tube, hang it on the holder and install the paint box on the DF vibration table.



(3) Remove the suction tube from the holder and place it in the paint box.



⚠ CAUTION

Failure to do so may damage the DF vibration table or cause abnormal heating or damage to the vibration motor.

Do not mount powder paint exceeding the specification (15 kg) on the DF vibration table.

⚠ CAUTION

Paint clogging may occur inside the paint hose, hand gun, and nozzle.

Be sure to fully loosen the powder paint before mounting it on the DF vibration table.

6.2 Supply of Coating to the Stirring Hopper (ST Specification Only)

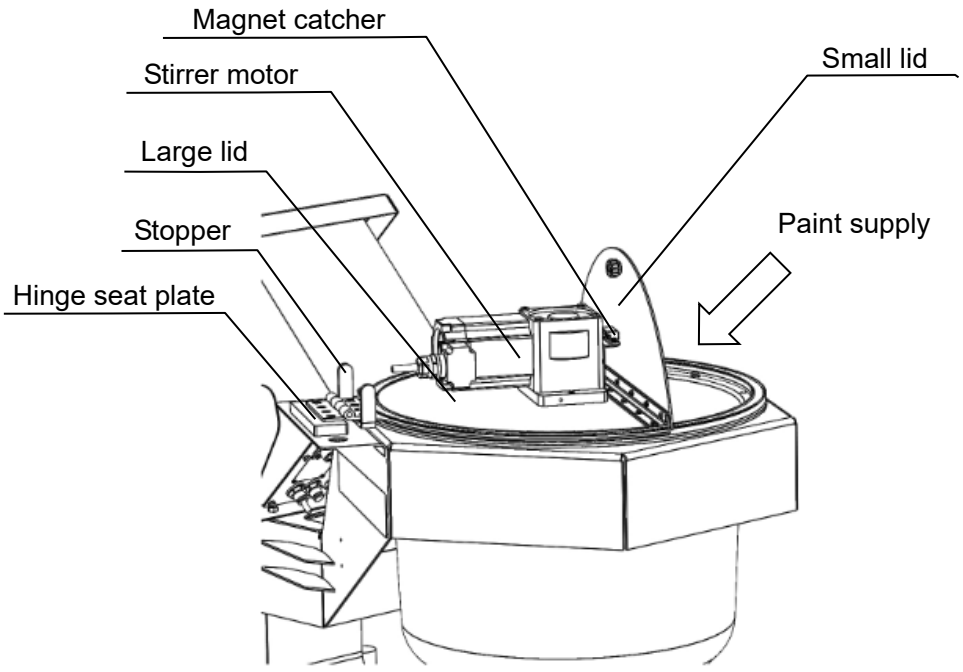
(1) Check that the power switch of the electrostatic controller is OFF.

⚠ WARNING

Failure to do so may result in injury or an accident due to unexpected motion.

When supplying powder paint to the stirring hopper, be sure to check that the power switch of the electrostatic controller is OFF.

(2) Open the small lid of the stirring hopper and supply powder paint.



⚠ WARNING

Sudden closure of the small lid may result in personal injury.

Open the small lid of the stirring hopper until it is securely fixed with a magnet.

⚠ WARNING

Sudden opening of the large lid may result in personal injury.

Open the large lid of the stirring hopper slowly until the stopper touches the hinge seat plate.

You may get your hand caught in the stopper.

⚠ CAUTION

Impact on the large lid may cause it to bend.

If you leave your hand before the large lid stops by the stopper or lean against it when pouring paint, etc., this may cause the lid to bend.

⚠ CAUTION

The stirring rod may be damaged.

Opening the large lid of the stirring hopper to supply powder paint and closing the large lid may cause damage such as bending or breakage of the stirring rod.

⚠ CAUTION

It may lead to breakage of the stirring rod, abnormal heating of the stirrer motor, or damage.

Do not supply powder paint exceeding the specification (15 kg) to the stirring hopper.

⚠ CAUTION

Paint clogging may occur inside the paint hose, hand gun, and nozzle.

Be sure to loosen the powder paint before supplying it to the stirring hopper.

6.3 Supply of Coating to the Flow Tank (FB Specification Only)

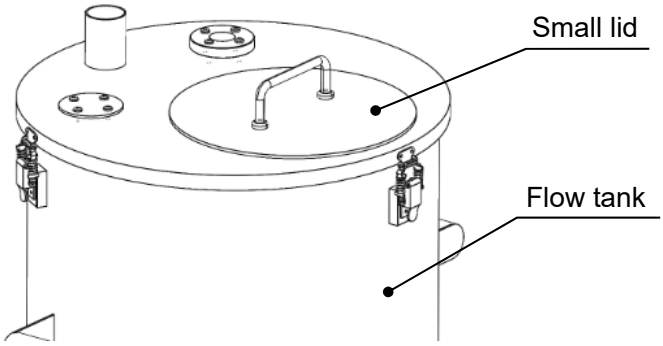
(1) Check that the power switch of the electrostatic controller is OFF.

⚠ WARNING

Failure to do so may result in injury or an accident due to unexpected motion.

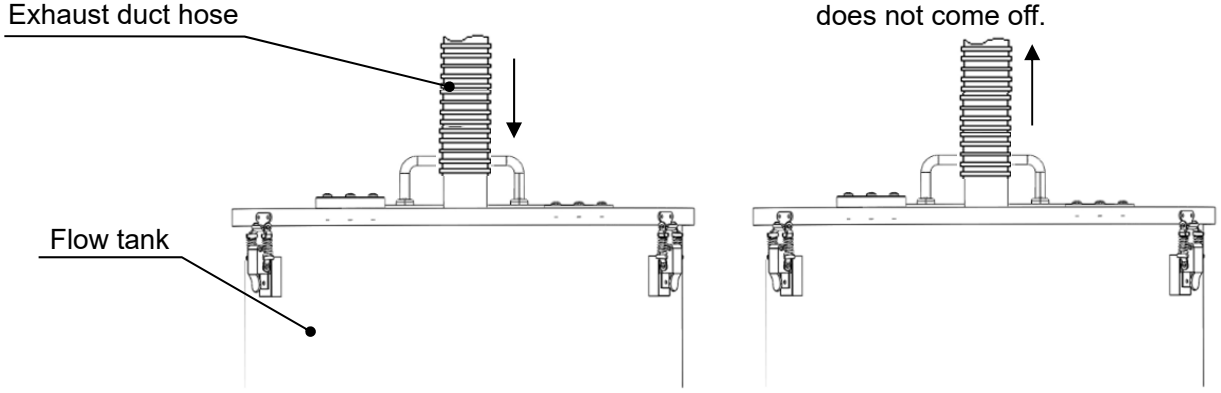
When supplying powder paint to the flow tank, make sure that the power switch of the electrostatic controller is always turned off, and the flow tank is securely grounded.

(2) Open the small lid of the flow tank and supply powder paint.



(3) Close the small lid of the flow tank.
(4) Insert the exhaust duct hose to the flow tank (see below) and check that it does not come off easily, and then set the duct hose in a place such as the coating booth where exhausted dust can be discharged.

* Lightly pull the duct hose and check that it does not come off.



⚠ WARNING

Failure to do so may result in personal injury or an accident.

The exhaust duct hose must be securely connected to the flow tank and must be placed in coating booth.

⚠ CAUTION

Otherwise, it may lead to damage to the flow tank.

Do not supply powder paint exceeding the specifications (15 kg) to the flow tank.

⚠ CAUTION

<u>Paint clogging may occur inside the powder hose, hand gun, and nozzle.</u>

Be sure to sufficiently loosen the powder paint before supplying it to the flow tank.

⚠ CAUTION

<u>Discharge may become unstable.</u>

- **Make sure that there is no paint clogging in the exhaust duct hose.**
- **The exhaust duct hose outlet must be open to air.**

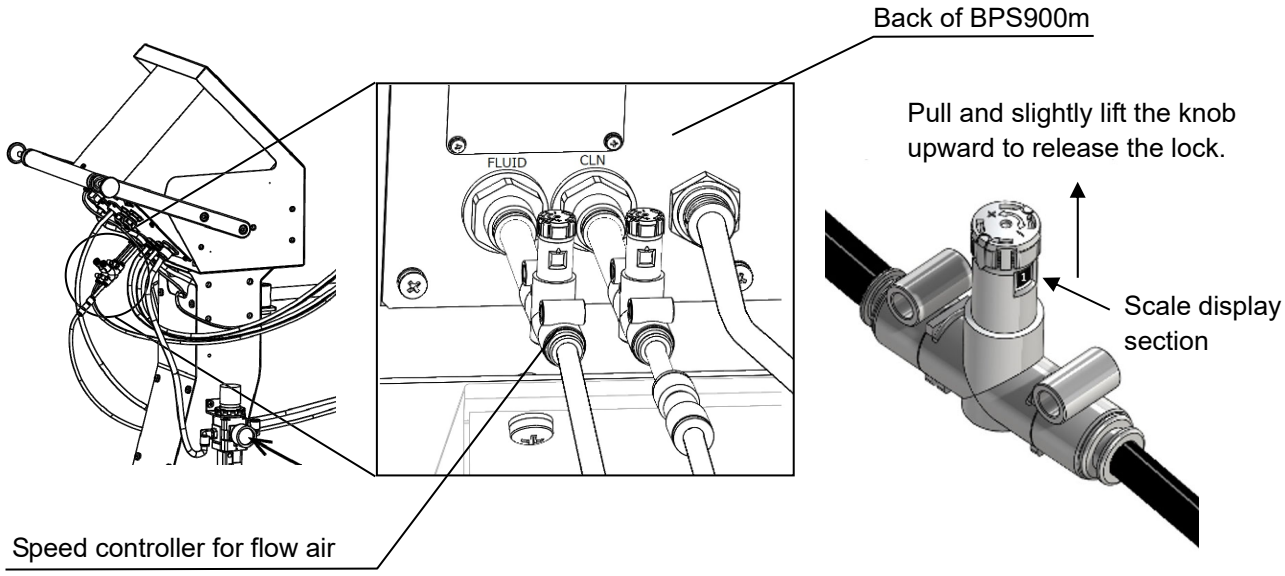
6.4 Checking the Discharge of Paint

(1) Turn on the power switch of the electrostatic controller.
(2) Set the desired flow rate and the paint transfer air volume.
(3) Set the measurement mode (press the Measure button).

NOTE

For the setting method of the gun voltage, gun current, flow rate, and paint transfer air volume, refer to the instruction manual of "Electrostatic Controller BPS900m".

(4) Activate the coating booth.
(5) Turn the knob of the speed controller (FLUID side) to adjust the flow air. (DF specification only)



・Adjust the flow air amount.

Turn the knob of the speed controller to adjust the flow air amount. (Default Memory: 6 to 7)

If you use the optional suction tube (9317), set it to 1 to 2.

* If the flow of powder paint is weak (the paint is not softened sufficiently), turn the knob counterclockwise to increase the flow.
* If the flow of powder paint is strong (the paint discharge amount near the suction tube is large), turn the knob clockwise to weaken the flow.

⚠CAUTION

Powder paint may spray out of the paint box/paint tank.

Adjust the flow air so that it is not too strong.

NOTE

If discharge is not stable due to zinc-rich paint (with a high specific gravity), we recommend using the suction tube (9317), which is sold separately.

(6) Point the gun tip of the hand gun toward coating booth and pull the gun trigger.
- Make sure that the powder paint is discharged from the gun tip.
- Make sure that the paint in the paint box is partially flowing.
  If it is not flowing, intensify the flow air until flow is visible.

6.5 Adjusting the Amount of Cleaning Air

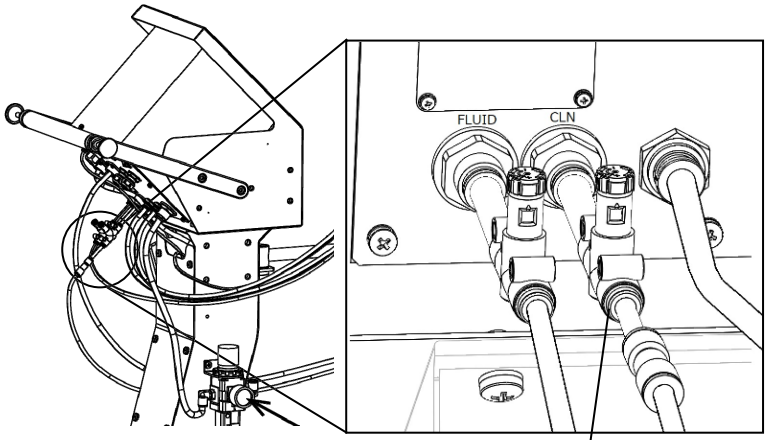
*Check the measurement mode (press the Measure button) before working.

(1) Adjust the cleaning air flow rate with the speed controller for cleaning air.
(Default Memory: 2 to 3)

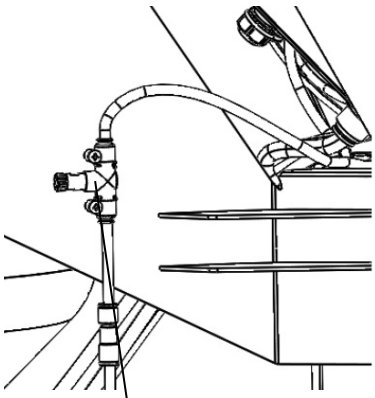
If there is a lot of blowing right after coating, turn it clockwise to weaken it.

If you are concerned about paint sticking to the gun tip electrode, turn the knob counterclockwise to strengthen it.

DF/FB type

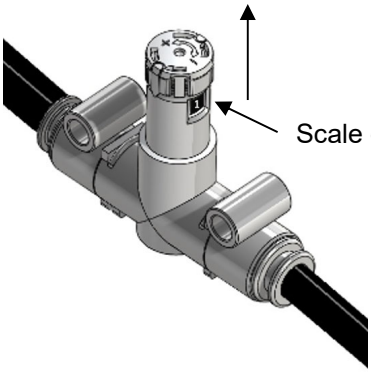


ST type

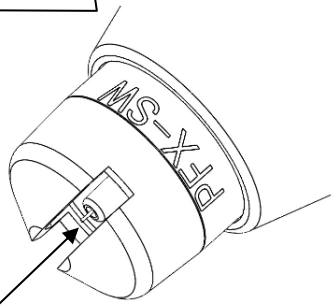


Pull and slightly lift the knob upward to release the lock.

Speed controller for cleaning air



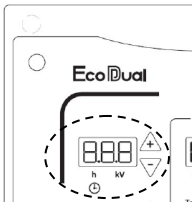
Scale display section



Electrode tip

7 Operation

The powder coating machine is operated differently depending on the conditions of powder coating, but the operation procedure is shown below as a guideline.



7.1 Operation Procedure

(1) Turn on the power switch of the electrostatic controller.
・Confirm that the model code lights on the gun application voltage display LED.
(Model code C: DF unit, Model code S: ST unit, Model code B: FB unit)

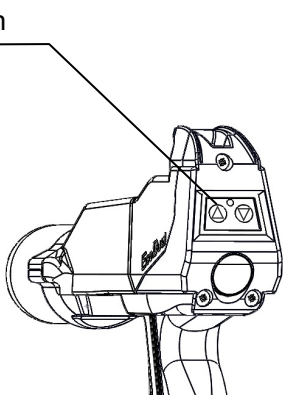
(2) Set coating requirements.

NOTE

For details on how to set coating condition, refer to "Descriptions of Settings and Indications" in the Operation Manual for the "Electrostatic Controller BPS900m".

7.2 Selection Switch Operation

In the factory setting, coating mode can be changed by operating the select switch behind the gun.



Press the △ button.

Flat plate mode ⇒ Uneven mode ⇒ Re coating mode ⇒ Flat plate...

Press the ▽ button.

Flat plate mode ⇒ Uneven mode ⇒ Re coating mode ⇒ Flat plate...

The flow rate (%) can be increased or decreased and the coating recipe number can be changed by changing the setting of the electrostatic controller.

NOTE

For details on how to set the select switch, refer to "Change of Default Settings" in the Operation Manual for the "Electrostatic Controller BPS900m".

8 Measures upon Completion of Work

Follow These steps when you finish coating.

8.1 When the Work is Suspended or the Work is Restarted During the Day.

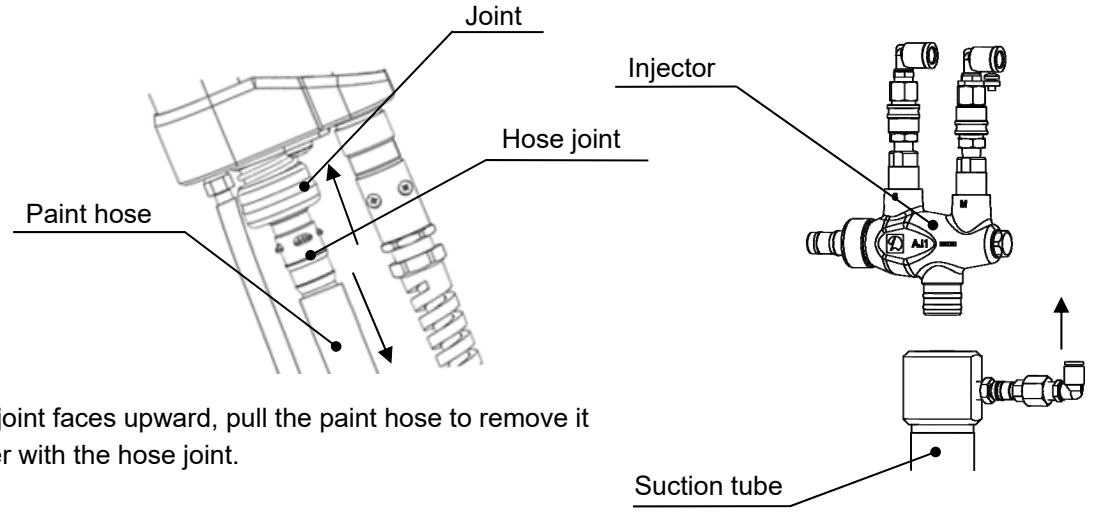
(1) Turn off the power switch of the electrostatic controller.

⚠ WARNING

High voltage may lead to injury or accidents.

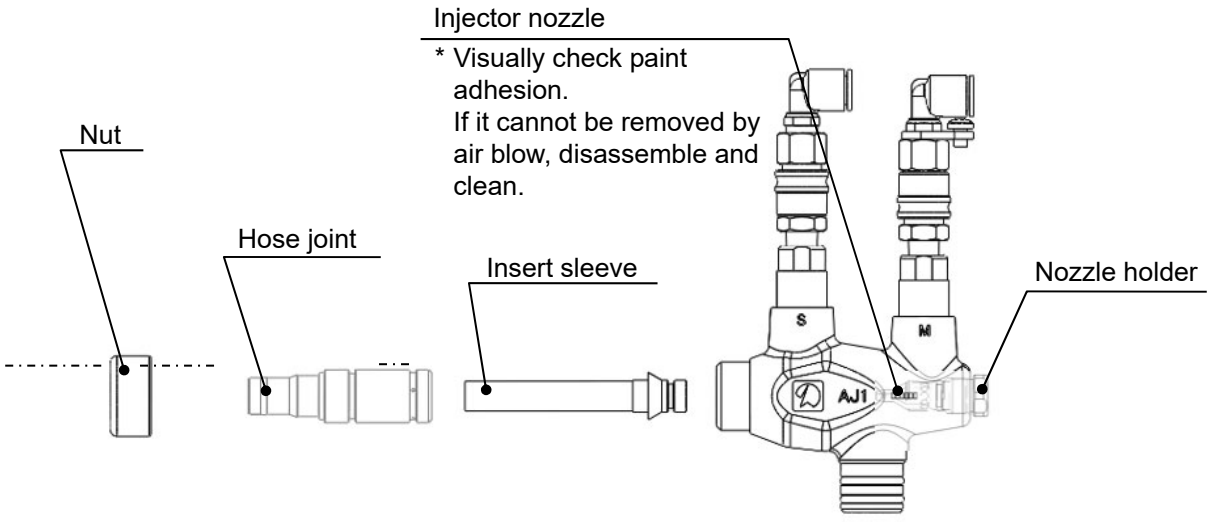
Be sure to turn OFF the power switch of the electrostatic controller before cleaning the hand gun.

(2) Remove the paint hose from the handgun.
(3) Remove the nozzle from the hand gun and clean the nozzle. Also clean the hand gun.
*When removing the nozzle, be careful not to drop or lose it.
(4) Remove the paint hose from the injector and clean the inner and outer surfaces of the paint hose.
(5) Disconnect the injector from the suction tube.



As the joint faces upward, pull the paint hose to remove it together with the hose joint.

・ Disassemble the injector as shown below and clean each part.
When assembling, tighten the nozzle holder until it does not turn.



13th Edition: June 25, 2025

[Daily Inspection of injector]

For daily cleaning, remove the insert sleeve and perform cleaning of the degree of air blow.

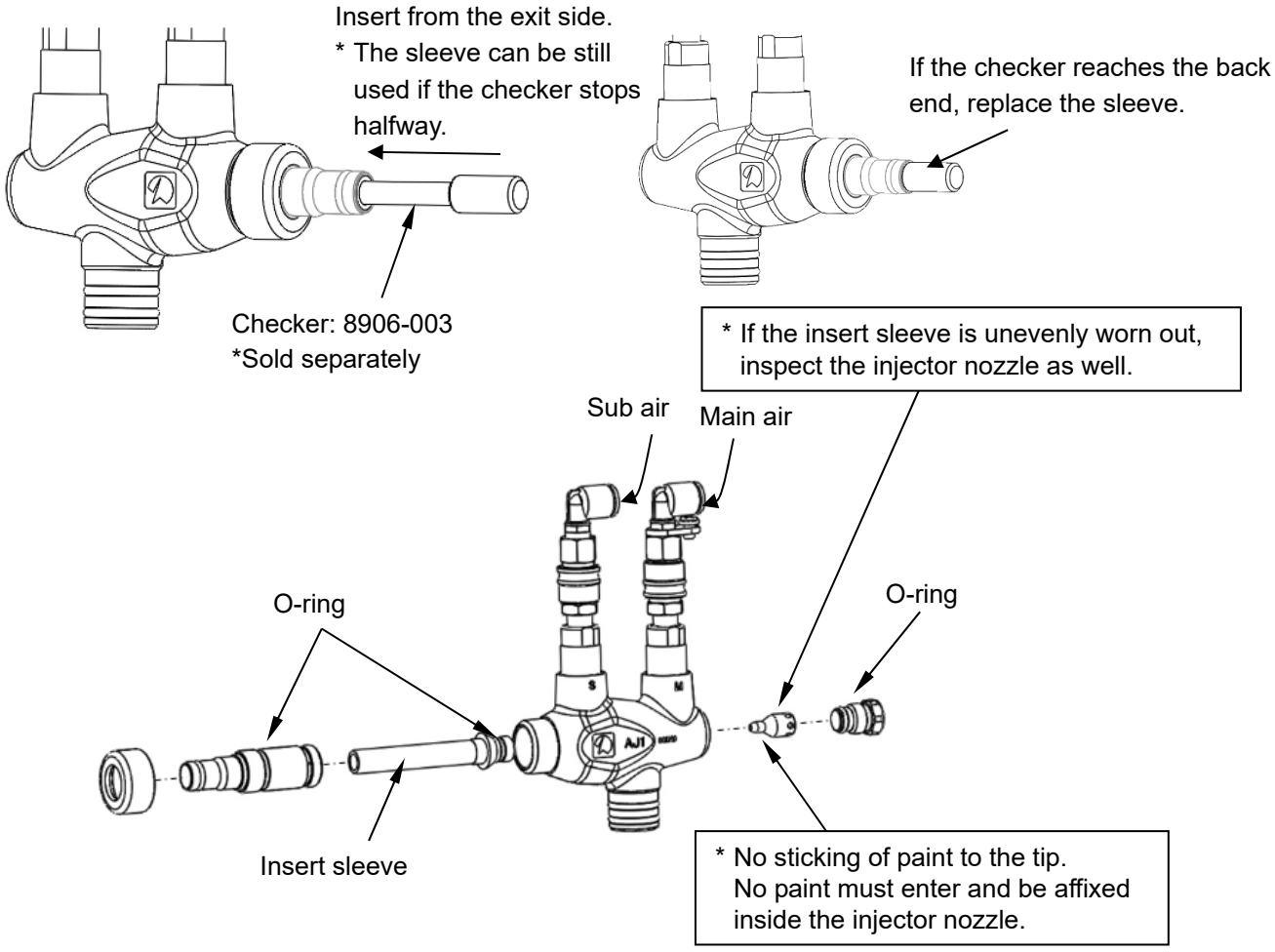
In order to maintain stable performance, remove the injector nozzle and inspect and clean it about once a week.

[1] Remove any paint sticking to the tip of the injector nozzle.

[2] Replace the insert sleeve if it is noticeably worn.

*The wear of the insert sleeve can be checked with the checker sold separately.

*How to use the checker



⚠ CAUTION

Paint sticking and/or paint entry to the injector nozzle has a great effect on the discharge performance such as paint clogging and premature wear of the insert sleeve. Make sure that the injector nozzle does not have any paint sticking and paint entry. If it does, remove the paint with air blow, etc. carefully so that the nozzle will not be scratched. Regarding cleaning of the hand gun unit, see "8.2 When Work is not Restarted for One Day or more."

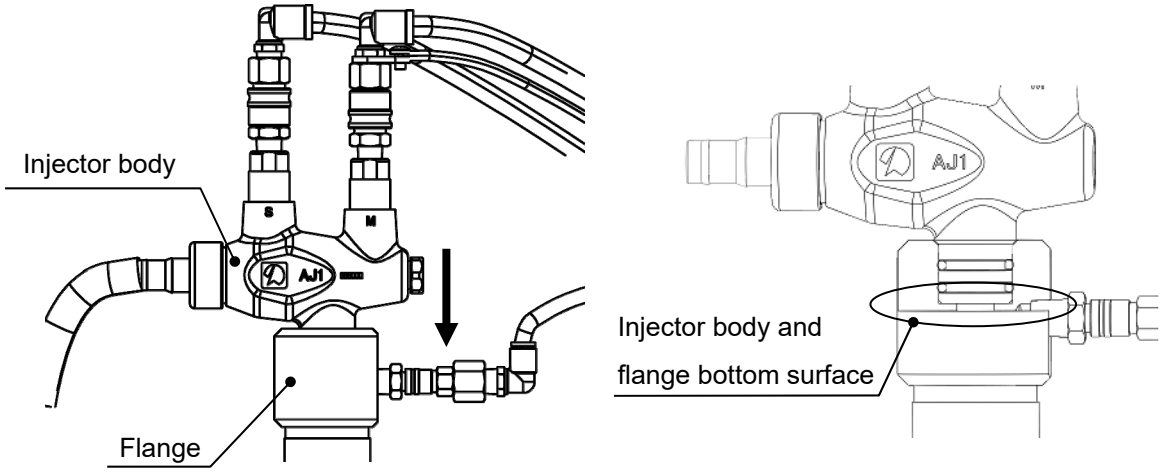
⚠ CAUTION

Worn insert sleeves have a significant effect on discharge performance.
Make sure that the inner diameter is not enlarged or decreasing, and that there is no sticking of foreign matter.
***The "insert sleeve" and the "O-ring" are consumable parts.**

(6) Assemble the parts removed during cleaning.

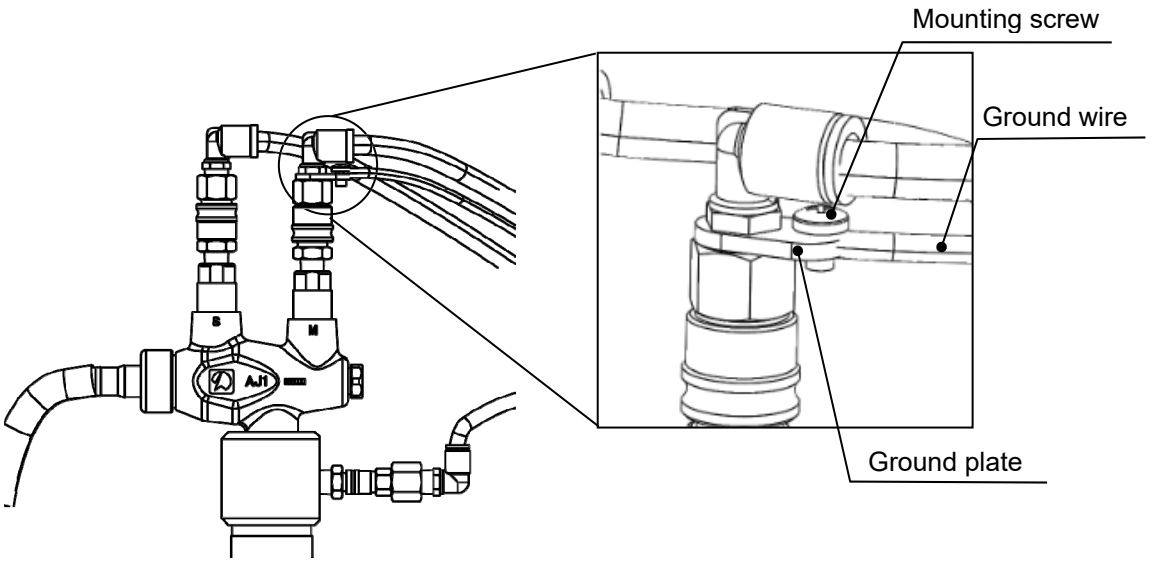
⚠ CAUTION

When inserting the injector into the suction tube, insert it until the bottom surface of the injector body contacts the flange contact surface.



⚠ CAUTION

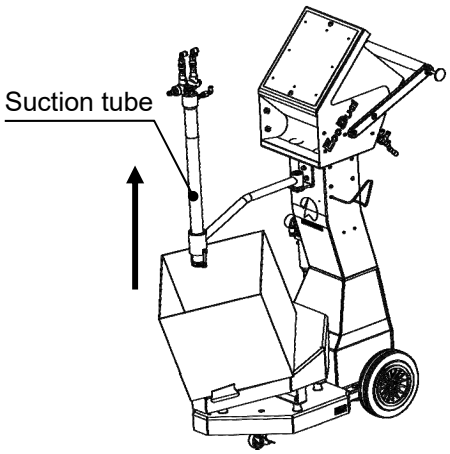
When restarting coating operation, make sure that the ground wire is connected to the injector.
Also, check that the mounting screws are not loosened.



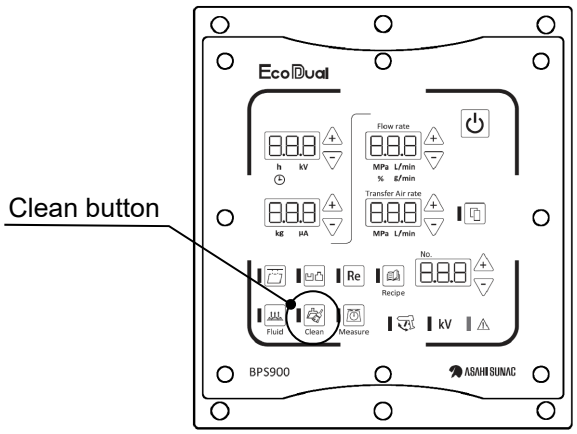
8.2 When Work is not Restarted for One Day or More

8.2.1 For DF specification

(1) Remove the suction tube from the paint box and hook it on the holder.

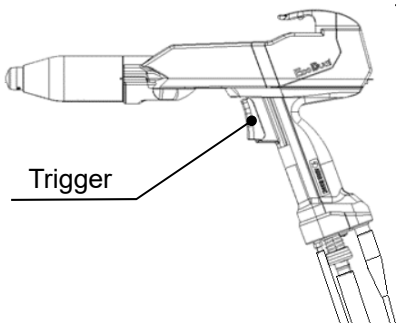


(2) Select the Clean button on the BPS900m board.



(3) Hold the gun trigger in the booth.

*Cleaning air is discharged while the trigger is held.



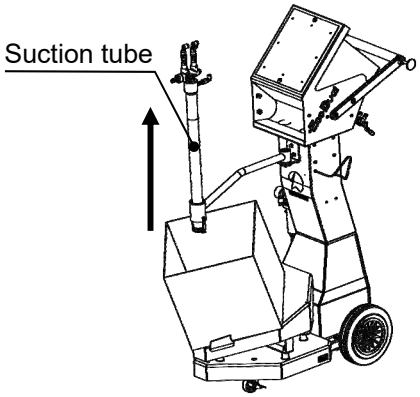
(4) When the paint is no longer discharged, release the trigger and clean the paint hose

Remove the suction tube and blow air.

*How to use Auto Cleaning Mode

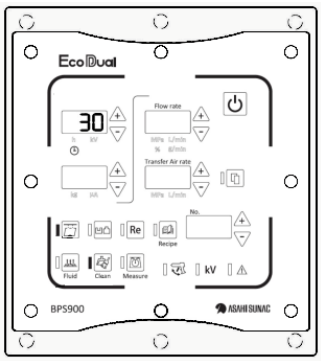
For details on how to set the controller, refer to “the Instruction Manual for the Electrostatic Controller BPS900m”.

(1) Remove the suction tube from the paint box and hook it on the holder.



(2) Select the Clean button on the BPS900m board.

The button on the control panel flashes, so press it.



When cleaning, point the gun at the exhaust duct inside the booth.

It stops when the lapse of set time or the button is pressed.

⚠ CAUTION

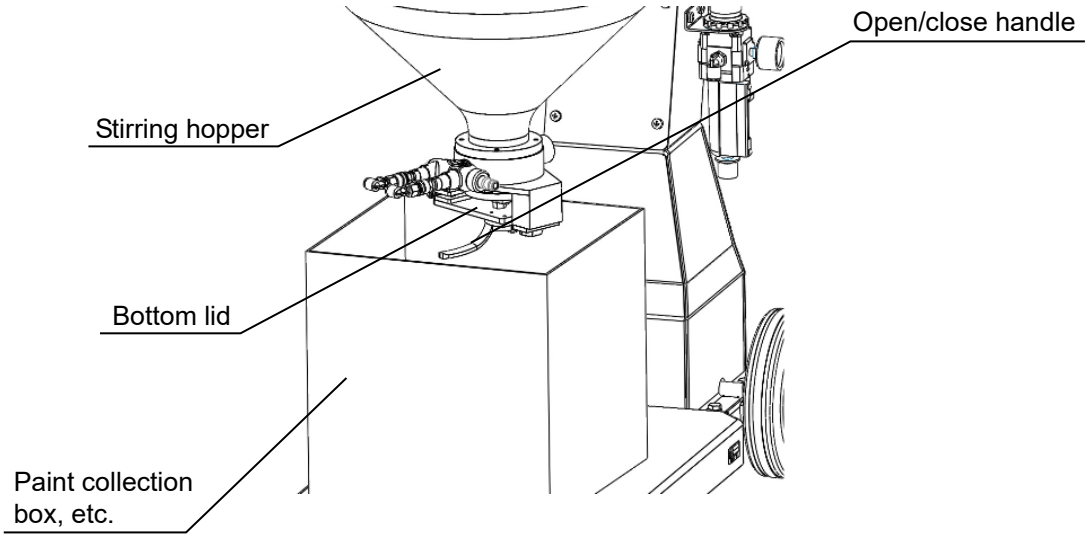
When restarting coating operation, make sure that the ground wire is connected to the injector.

8.2.2 For ST specification

（1）As seeing the step in 8.1, clean the injector and then stirring hopper.

[1] Close the top of the stirring hopper.

[2] Install a box or bag, etc., to collect powder paint at the bottom of the stirring hopper.



[3] Turn on the flow switch of the electrostatic controller.

*The stirring rod starts rotating.

⚠ WARNING

Failure to do so may result in personal injury or an accident.

Do not put your hands inside the stirring hopper when the stirring rod is rotating.

[4] Turn the opening/closing handle at the bottom of the stirring hopper to open the bottom lid.

*Powder paint is discharged from the stirring hopper.

[5] Close the bottom lid when the powder paint in the stirring hopper is empty.

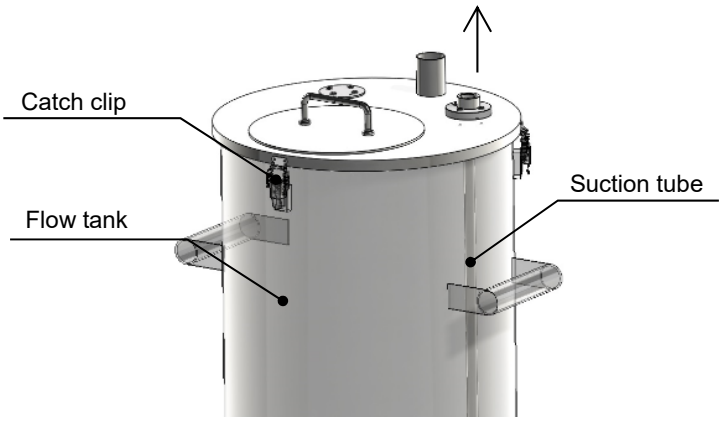
[6] Turn off the flow switch of the electrostatic controller and turn off the power switch.

[7] Clean the inside of the stirring hopper.

8.2.3 For FB specification

(1) As seeing the step in 8.1, clean the injector and then flow tank.

[1] Remove the suction tube from the flow tank and clean the suction tube.



[2] Remove the catch clip, drain paint from the flow tank, and clean the inside of the tank.

[3] Take up parts removed after cleaning.

⚠ WARNING

Failure to do so may result in personal injury or an accident.

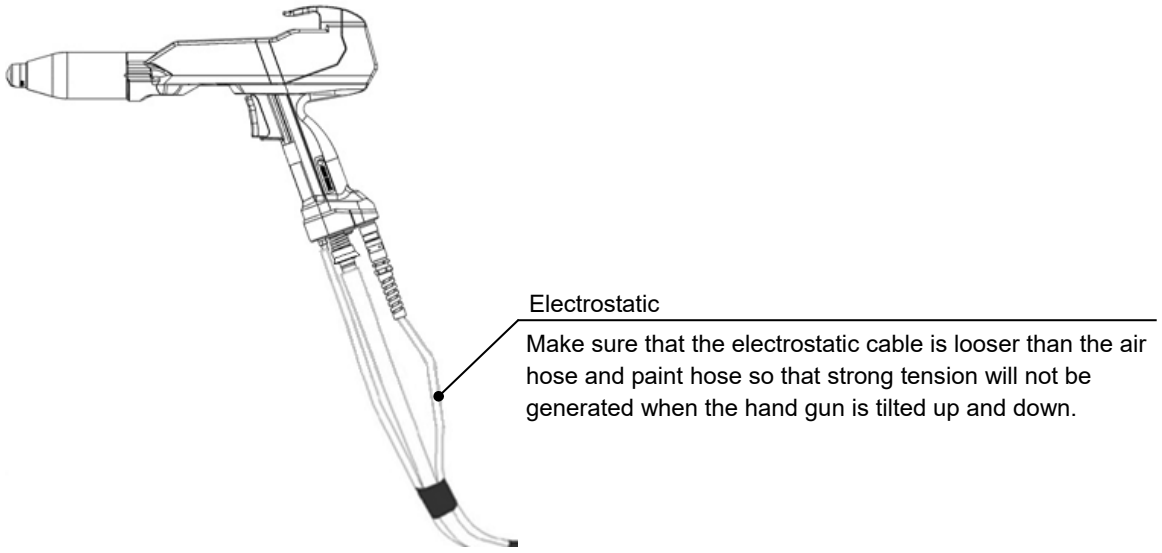
When cleaning the flow tank, make sure that the tank ground is securely connected.

9 Equipment Maintenance

(1) Keep the clean state of the powder coating machine at all times to avoid paint or other contamination. Be sure to remove any paint that has adhered.
(2) Plastic components are often used in powder coating machines. Take care not to damage the product by mechanical shock (stepping on shoes, laying under items, hitting it with a cart, etc.). When the damaged part is found, replace immediately.
(3) Paint hoses and electrostatic cables are consumables. It is recommended to replace it with a new one according to the degree of wear.

⚠ CAUTION

After replacing the cable, attach it with enough slack to avoid pulling the cable.
If the product is used in a tensioned state, it may cause wire breakage.



9.1 Periodic Inspection

Conduct periodic inspections for the items listed in the table below. Note that the inspection timing is only a guideline and varies depending on the operating conditions.

9.1.1 Periodic inspection of the hand gun unit

Inspection item	Inspection method	Inspection timing
Check for paint sticking and wear of the insert sleeve	[1] Remove the injector insert sleeve. [2] Inspect the paint path of the insert sleeve for paint sticking and wear. * If the paint sticking is found, remove it. * If significant wear is found on the insert sleeve, replace the insert sleeve. (Use the checker sold separately.)	1 month, or when discharge failure occurs.
Check for paint sticking of injector nozzle	[1] Remove the injector from the suction tube. [2] Check the injector nozzle for paint sticking. * If the paint sticking is found, remove it.	1 month, or when discharge failure occurs.
Drain discharge of the air filter	[1] Lay a cloth, etc., under the lower part of the air regulator with a filter to which the input air is connected. [2] Turn the knob at the bottom of the air filter.	–

9.1.2 Periodic Inspection of the Hand Gun

For the periodic inspection items of the hand gun, refer to “Maintenance and Inspection” in the instruction manual of Dual Electric Field Type Powder Hand Gun ECDm.

⚠ WARNING

This may lead to an electric shock.

When inspecting the hand gun, be sure to turn off the power switch of the electrostatic controller.

○ Maintenance of hand gun

Perform the following inspections after completing coating operation.

(1) Turn off the power of the electrostatic controller.

(2) Clean paint adhering to the hand gun with air blow, etc.

⚠ WARNING

This may lead to an electric shock.

When inspecting the hand gun, be sure to turn off the power switch of the electrostatic controller.

⚠ WARNING

Failure to do so may result in personal injury or an accident.

- **The connection cable is not only for supplying power to the gun, but also for grounding and controlling the gun.**
  If you use the damaged cable, it may result in poor grounding, resulting in a fire or electric shock.
- **Make sure that there is no bending or scratches.**

9.2 Consumables

Prepare your spare parts according to use situations, referring to the rank category of the following consumable list.

Rank A: Parts are consumed in a mid or long term.
Rank B: Parts may be damaged or lost during works.
Rank C: Parts need to be replaced at disassembly.

Injector Part No.: 8435

Rank classification	Part name	Part Number	Configuration unit	Page
A	Insert sleeve ASSY	8435-010	Common to DF, ST, FB	43,44
	Insert sleeve	8435-002		
	Injector nozzle	8435-003		
	Filter	8435-007		
B	Hose joint	8435-005		
	Retainer	8435-006		
C	O-ring	130-6007		
	O-ring	130-6008		
	O-ring	130-6014		
	O-ring	101-6016		

Unit stand

Rank classification	Part name	Part Number	Configuration unit	Page
A	Anti-vibration rubber	352-0008	DF bucket	37
B	Filter regulator	301-0074	Common to DF, ST, FB	
	Speed controller with dial	318-0028		
	Check valve	368-0009		
	Vibrating motor ASSY	8206-005	DF bucket	
	Stirrer motor	8418-008	ST bucket	39
	Speed controller with dial	318-0027	FB bucket	41

DF suction tube Part Nos.: 9307, 9317 (for zinc-rich paint)

Rank classification	Part name	Part Number	Configuration unit	Page
A	Flow pad	9307-006	DF suction tube	45
		8406-304	DF suction tube for zinc rich	
B	O-ring	101-9026	DF suction tube	
	Outer cylinder	9307-003		
	Suction port	9307-005		
		8406-008	Suction tube for zinc rich	
C	O-ring	130-6012	DF suction tube	
	O-ring	130-6014		
	O-ring	130-6030		
	O-ring	101-60125	DF suction tube for zinc rich	

FB-tank Part Nos.: 8444, 8444-1

Rank classification	Part name	Part Number	Configuration unit	Page
B	Porous plate	8444-004	FB unit	47,48
	Sheet packing	8444-005		
	Sheet packing	8444-006		

FB suction tube Part No.: 8445

Rank classification	Part name	Part Number	Configuration unit	Page
B	O-ring	101-9020	FB Suction Tube	49

NOTE

For hand gun consumables, refer to the instruction manual of "Dual Electric Field Type Powder Hand Gun ECDm".

10 Failures and Troubleshooting

Symptom of problem	Cause	Measures and Countermeasures
The electrostatic controller is not powered on	The power cord is not plugged in.	Securely plug the power cord into AC100 V power source.
	Faulty electrostatic controller.	Repair or replace the electrostatic controller.
The operation panel is not displayed.	Damage to the operation panel.	Repair or replace the electrostatic controller.
Powder paint does not discharge.	Primary air is not supplied to filter regulator.	Connect the primary air to the filter regulator.
	Defective connection of the air tube of the primary air.	Firmly insert into the filter regulator or the joint of the back side of the electrostatic controller.
	The pressure gauge display of the filter regulator is low (less than 0.5 MPa).	Set to 0.5 MPa (dynamic pressure).
	Filter regulator failure.	Replace the filter regulator.
	Failure of the solenoid valve inside the electrostatic controller.	Repair or replace the electrostatic controller.
	Poor connection of the connection cable.	Insert it firmly into the connector on the back of the electrostatic controller and the connector of the hand gun and fix it.
	Defective connection cable.	Replace the connection cable (rear hatch ASSY).
	Defective connecting the main or sub air tube.	Securely insert into the injector or the joint on the back of the electrostatic controller.
	Poor connection of paint hose.	Plug firmly into the hose joint of the hand gun or injector.
	Clogged hand gun, paint hose, or injector.	Clean or replace the hand gun, paint hose, and injector.
	Faulty electrostatic controller.	Repair or replace the electrostatic controller.
	Insufficient paint in the paint box/stirrer hopper/paint tank.	Supply paint.
	Paint is not flowing.	Firmly insert the flow air tube into the back of the electrostatic controller or the injector side.
		Adjust the flow air with the speed controller (DF and FB specification only).
	The DF vibration table is not vibrating. (DF specification only)	Insert the vibration motor cable firmly into the connector on the back of the electrostatic controller.
		Replacement of vibration motor. (in case of failure)
	The stirring rod is not rotating. (ST specification only)	Insert the motor cable firmly into the connector on the back of the electrostatic controller and fix it.
		Repair or replace the stirrer motor.
	Hand gun failure.	Repair or replace the hand gun.
The discharge pattern, or flow rate is unstable.	Nozzle wear.	Replacement of nozzles (flat, reflector).
	Wear of the injector insert sleeve.	Replace the insert sleeve.
	Clogged hand gun, paint hose, or injector.	Clean or replace the hand gun, paint hose, and injector.
	Paint is wet or set.	Replacement of paint.
	Defective connecting the main or sub air tube.	Securely insert into the coupler and joint of the injector or the joint on the back of the electrostatic controller.
	Poor connection of paint hose.	Plug firmly into the hose joint of the hand gun or injector.
	Insufficient paint in the paint box/stirrer hopper/paint tank.	Supply paint.

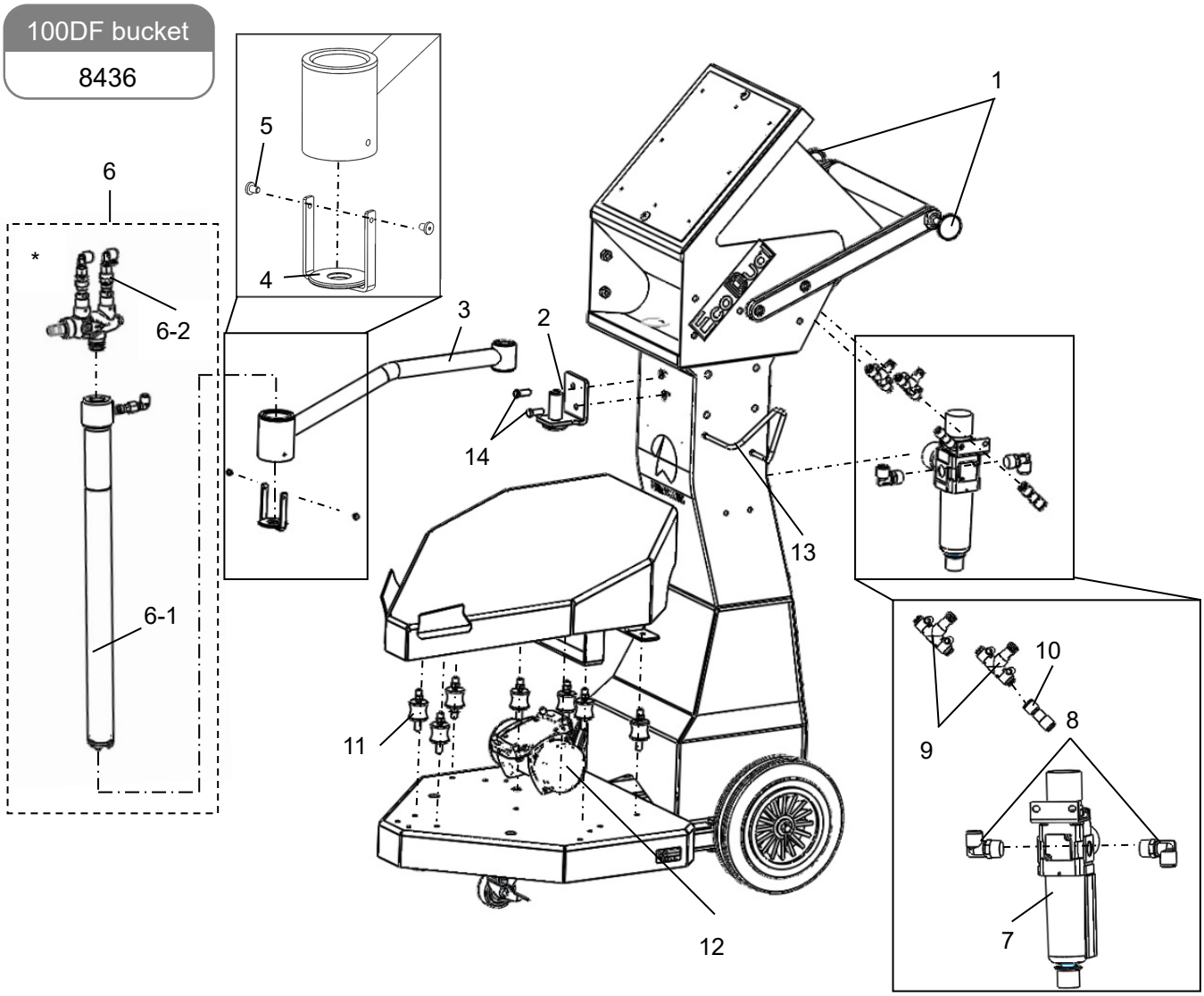
Symptom of problem	Cause	Measures and Countermeasures
Discharge pattern, or flow rate is unstable	Paint is not flowing or poorly flowing.	Firmly insert the flow air tube into the back of the electrostatic controller or the injector side.
		Turn the finger valve "open".
		Adjust the flow air with the speed controller (DF and FB specification only).
	The DF vibration table is not vibrating. (DF specification only)	Insert the motor cable firmly into the connector on the back of the electrostatic controller and fix it.
		Replacement of vibration motor. (in case of failure)
	The stirring rod is not rotating. (ST specification only)	Insert the motor cable firmly into the connector on the back of the electrostatic controller and fix it.
		Repair or replace the stirrer motor.
	Gap in the paint path and negative pressure is not being generated properly. (DF specification only)	Tighten the fluid pad and the suction tube outer cylinder that no gaps between them.
		Replace the injector O-ring (101-6016).
		Replace the injector nozzle (if stuck).
Discharge pattern is split.	Paint stuck to nozzle or electrode.	Clean the nozzle or electrode.
	Nozzle wear.	Replacement of nozzles (flat, reflector).
	The transfer rate is high.	Adjust the transfer rate (L/min).
Low paint transfer efficiency, poor paint throwing power.	Poor ground.	Securely attach the ground wire to the electrostatic controllers and coating unit buckets.
		Securely attach the mounting bracket at the end of the ground wire from coating unit bucket to a Class D grounded booth or a steel structured pole with a grounding resistance of 100 Ω or less, and ground the unit.
		Peel off the paint film on the hanger of the object to be coated and jigs, and clean.
	The gun voltage is low.	Increase the gun voltage (kV) using an electrostatic controller (Refer to the instruction manual of "Electrostatic Controller BPS900m".)
	Paint transfer air volume is high.	Lower the paint transfer air volume (L/min (ANR)) using the electrostatic controller. (Refer to the instruction manual of "Electrostatic Controller BPS900m".)
	Hand gun failure. (High-voltage generator)	Repair or replace the hand gun.
	Improper mounting of the nozzle.	Firmly attach the nozzle to the tip of the hand gun. Fit and tighten the cap nut firmly.
Poor coating finish.	Constant current setting mode is incorrect.	Set according to the shape of the object to be coated and coating requirements. (3 modes: flat plate, uneven, and recoating) (Refer to the instruction manual of "Electrostatic Controller BPS900m".)
	Coating is close.	Increase the coating distance.
	The flow rate is large.	Reduce the flow rate with an electrostatic controller. (Refer to the instruction manual of "Electrostatic Controller BPS900m.")
	The gun applied voltage is high.	With the gun voltage (kV) using an electrostatic controller (Refer to the instruction manual of "Electrostatic Controller BPS900m".)
	Paint is wet or set.	Replacement of paint.

Symptom of problem	Cause	Measures and Countermeasures
(Constant) Current value display remains at 0 μA.	Poor connection of the connection cable.	Insert it firmly into the connector on the back of the electrostatic controller and fix it.
	Defective connection cable.	Repair or replace the hand gun.
	Hand gun failure. (High-voltage generator)	Repair or replace the hand gun.
	Poor ground.	Securely attach the ground wire to the electrostatic controllers and coating unit buckets.
		Securely attach the mounting bracket at the end of the ground wire from coating unit bucket to a Class D grounded booth or a steel structured pole with a grounding resistance of 100 Ω or less, and ground the unit.
		Removal and cleaning of paint film on hangers of the object to be coated and jigs.
	Faulty electrostatic controller.	Repair or replace the electrostatic controller.
(Constant) Current value does not rise.	(Constant) Current value setting is low.	Change the current mode by the electrostatic controller or increase the (constant) current value setting. (Refer to the instruction manual of "Electrostatic Controller BPS900m".)
	Handgun failure (high voltage generator).	Repair or replace the hand gun.
	Poor ground.	Securely attach the ground wire to the electrostatic controllers and coating unit buckets.
		Securely attach the mounting bracket at the end of the ground wire from coating unit bucket to a Class D grounded booth or a steel structured pole with a grounding resistance of 100 Ω or less, and ground the unit.
		Removal and cleaning of paint film on hangers of the object to be coated and jigs.

11 Component

11.1 100DF Bucket

100DF bucket
8436



No.	Part No.	Part name	Q'ty	Remark
1	8436-009	Gun hanger	2	
2	8436-016	Hinge ASSY	1	
3	8436-012	Suction tube support	1	
4	8439-019-3	Holder	1	
5	360-0189	Hex. socket extra low head bolt	2	M4×6L
6	8443	Thruster rod	1	
*6-1	9307	DF suction tube	1	
*6-2	8435	AJ1 (injector)	1	

No.	Part No.	Part name	Q'ty	Remark
7	301-0074	Filter regulator	1	
8	384-1003	Quick joint (elbow)	2	
9	318-0028	Speed controller with dial	2	
10	368-0009	Check valve	1	
11	352-0008	Anti-vibration rubber	7	
12	8206-005	Vibrating motor ASSY	1	
13	8436-011	Hose hanger R	1	
14	01-10620	Hex. socket head cap screw	2	

*No. 6 thruster rod is not included in the 100DF bucket (8436).

Ground wire

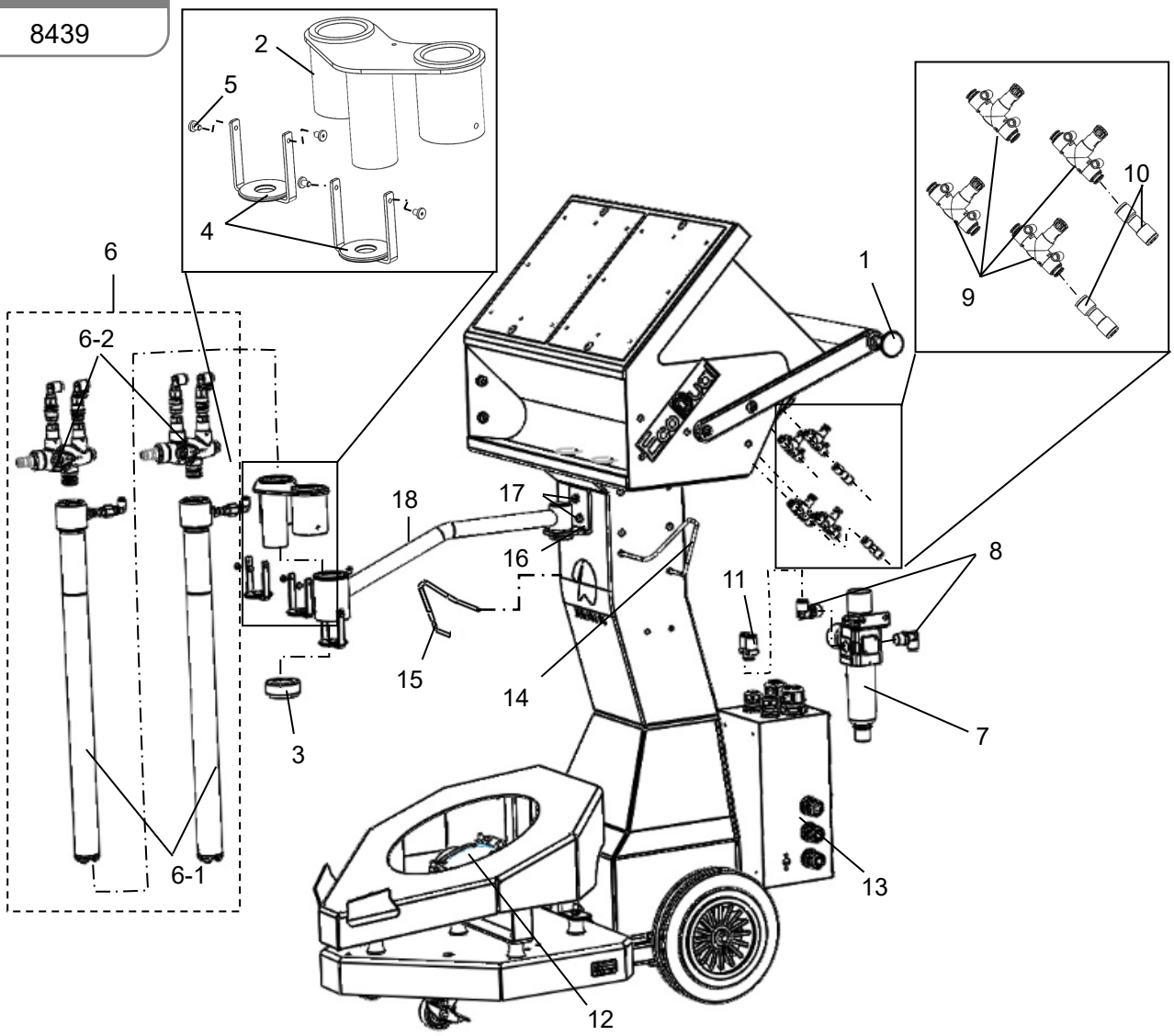
No.	Part No.	Part name	Q'ty	Remark
-	8427-040	Ground wire	1	Between the controller ground terminal and bus bar (*) (Φ5 × Φ5 × 1000 L)
-	8436-038	Ground wire	1	Between the bus bar (*) and injector (Φ4 x Φ5 x 2000 L)
-	6612-007	Ground wire	1	Between the bus bar(*) and Class D grounding (Φ5 × mounting bracket × 7000 L)

*For the bus bar, refer to page 6.

11.2 200DF Bucket

200DF bucket

8439



No.	Part No.	Part name	Q'ty	Remark
1	8436-009	Gun hanger	2	
2	8439-019	Adapter	1	
3	8428-013	Cap	1	
4	8439-019-3	Holder	2	
5	360-0189	Hex. socket extra low head bolt	4	M4×6L
6	8443	Thruster rod	1	
*6-1	9307	DF suction tube	2	
*6-2	8435	AJ1 (injector)	2	
7	301-0074	Filter regulator	1	
8	384-1003	Quick joint (elbow)	2	

No.	Part No.	Part name	Q'ty	Remark
9	318-0028	Speed controller with dial	4	
10	368-0009	Check valve	2	
11	391-1000	Quick joint	1	
12	8206-005	Vibrating motor ASSY	1	
13	8439-015	Relay box	1	
14	8436-011	Hose hanger R	1	
15	8439-011	Hose hanger L	1	
16	8436-016	Hinge ASSY	1	
17	01-10620	Hex. socket head cap screw	2	
18	8436-012	Suction tube support	1	

*No. 6 thruster rod is not included in the 200DF bucket (8439).

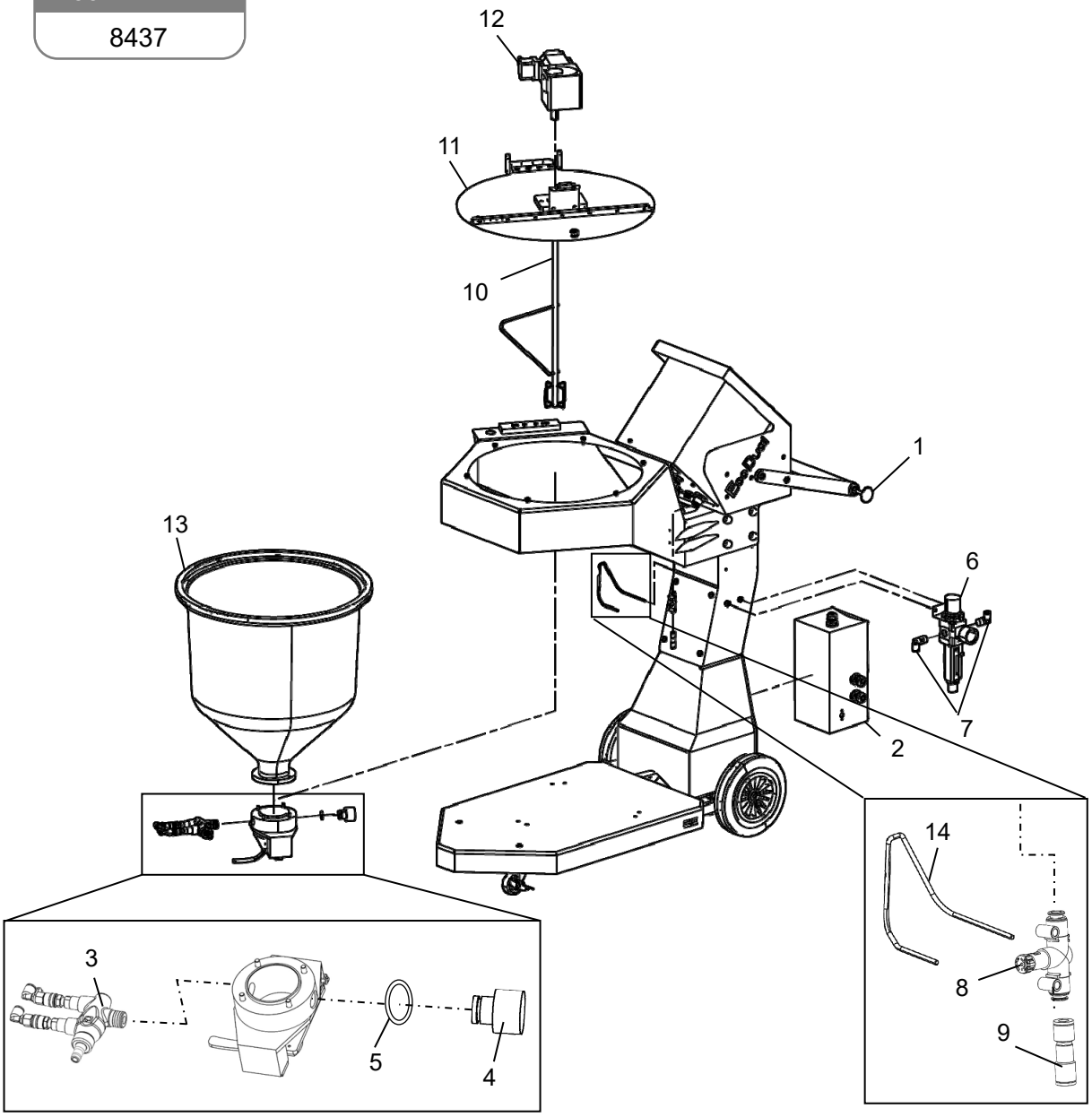
Ground wire

No.	Part No.	Part name	Q'ty	Remark
-	8427-040	Ground wire	1	Between the relay box and bus bar (*) (Φ5 × Φ5 × 1000 L)
-	8436-038	Ground wire	2	Between the bus bar (*) and injector (Φ4 x Φ5 x 2000 L)
-	6612-007	Ground wire	1	Between the bus bar(*) and Class D grounding (Φ5 × mounting bracket × 7000 L)

*For the bus bar, refer to page 6.

11.3 100ST Bucket

100ST bucket
8437



No.	Part No.	Part name	Q'ty	Remark
1	8436-009	Gun hanger	2	
2	8437-015	Relay box	1	
*3	8435	AJ1 (injector)	1	
4	8403-008	Plug for ST	1	
5	101-6016	O-ring	1	
6	301-0074	Filter regulator	1	
7	384-1003	Quick joint (elbow)	2	

No.	Part No.	Part name	Q'ty	Remark
8	318-0028	Speed controller with dial	1	
9	368-0009	Check valve	1	
10	8418-002	Stirring rod assembly	1	
11	8209	Canopy ASSY	1	
12	8418-008	Stirrer motor	1	
13	8403-001	Stirring hopper	1	
14	8436-011	Hose hanger R	1	

*No. 3 AJ1 (injector) is not included in the 100ST bucket (8437).

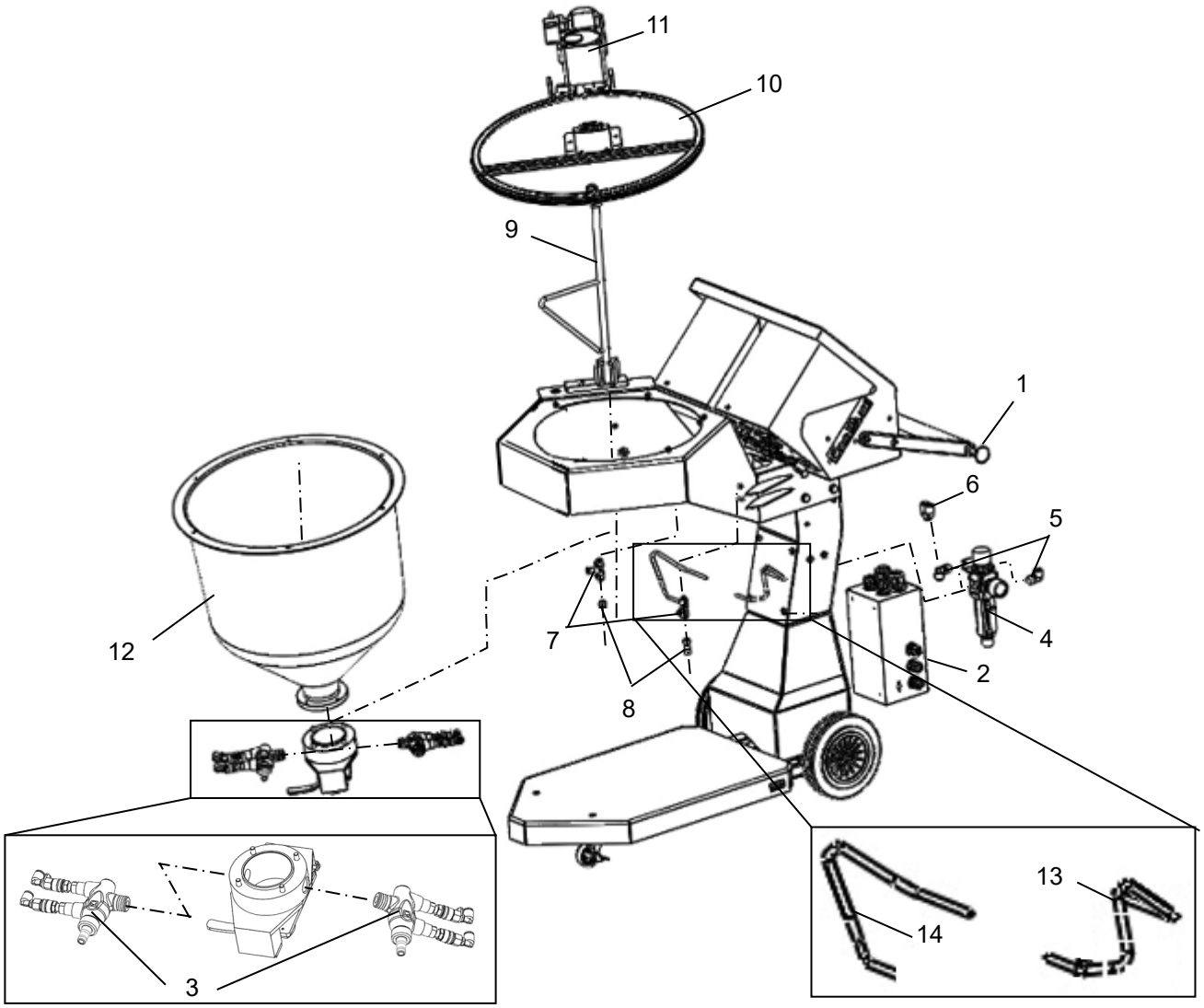
Ground wire

No.	Part No.	Part name	Q'ty	Remark
-	8428-040	Ground wire	1	Between the relay box and bus bar (*) (Φ5 × Φ5 × 300 L)
-	8436-038	Ground wire	1	Between the bus bar (*) and injector (Φ4 x Φ5 x 2000 L)
-	6612-007	Ground wire	1	Between the bus bar(*) and Class D grounding (Φ5 × mounting bracket × 7000 L)

*For the bus bar, refer to page 7.

11.4 200ST Bucket

200ST bucket
8440



No.	Part No.	Part name	Q'ty	Remark
1	8436-009	Gun hanger	2	
2	8440-015	Relay box	1	
*3	8435	AJ1 (injector)	2	
4	301-0074	Filter regulator	1	
5	384-1003	Quick joint (elbow)	2	
6	391-1000	Quick joint	1	
7	318-0028	Speed controller with dial	2	

No.	Part No.	Part name	Q'ty	Remark
8	368-0009	Check valve	2	
9	8418-002	Stirring rod assembly	1	
10	8209	Canopy ASSY	1	
11	8418-008	Stirrer motor	1	
12	8403-001	Stirring hopper	1	
13	8436-011	Hose hanger R	1	
14	8439-011	Hose hanger L	1	

*No. 3 AJ1 (injector) is not included in the 200ST bucket (8440).

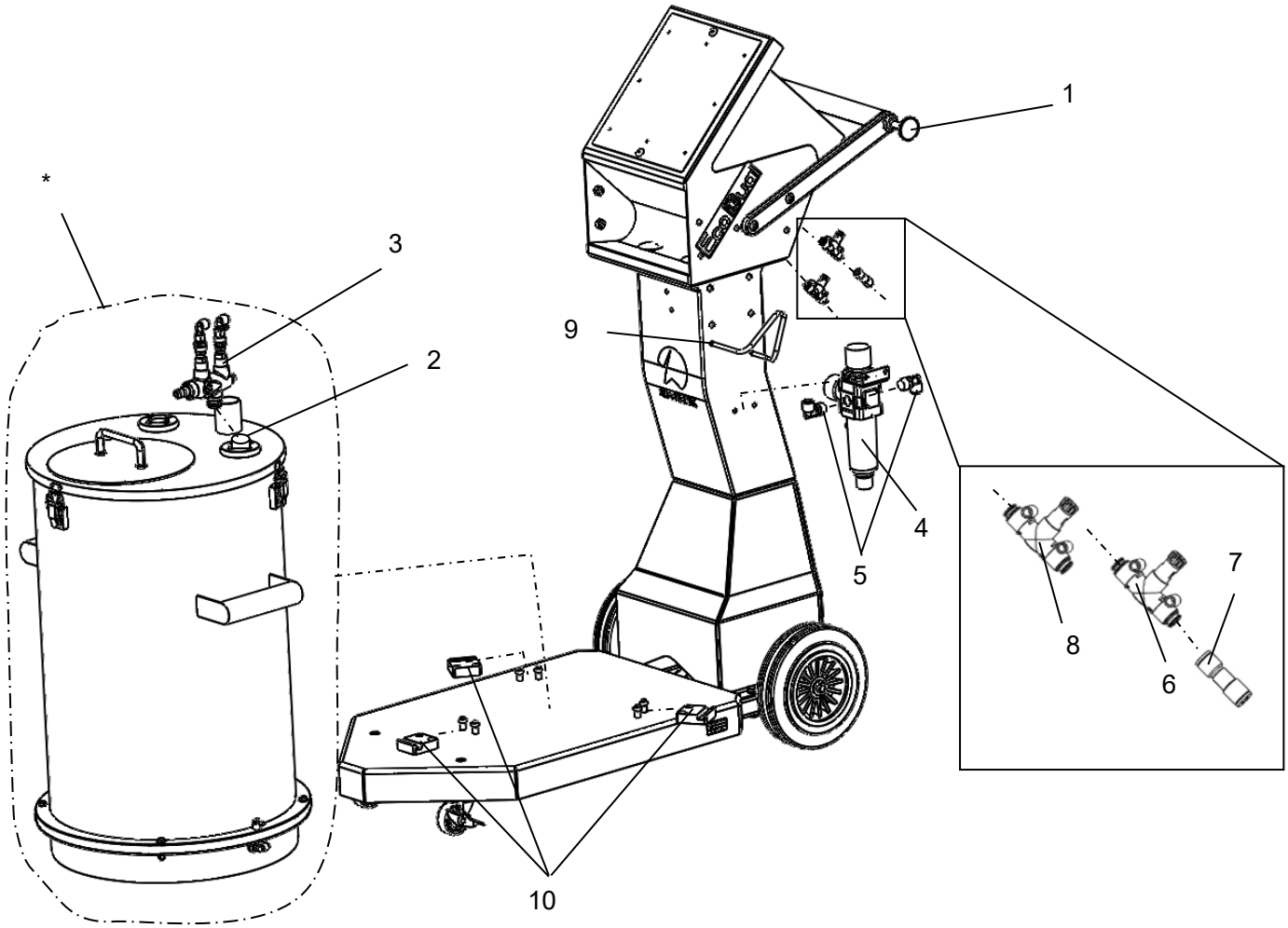
Ground wire

No.	Part No.	Part name	Q'ty	Remark
-	8428-040	Ground wire	1	Between the relay box and bus bar (*) (Φ5 × Φ5 × 300 L)
-	8436-038	Ground wire	2	Between the bus bar (*) and injector (Φ4 x Φ5 x 2000 L)
-	6612-007	Ground wire	1	Between the bus bar(*) and Class D grounding (Φ5 × mounting bracket × 7000 L)

*For the bus bar, refer to page 7.

11.5 100FB Bucket

100FB bucket
8438



* The tank unit is not included in the configuration.

No.	Part No.	Part name	Q'ty	Remark
1	8436-009	Gun hanger	2	
*2	8445	FB Suction Tube	1	
*3	8435	AJ1 (injector)	1	
4	301-0074	Filter regulator	1	
5	384-1003	Quick joint	2	

No.	Part No.	Part name	Q'ty	Remark
6	318-0028	Speed controller with dial	1	
7	368-0009	Check valve	1	
8	318-0027	Speed controller with dial	1	
9	8436-011	Hose hanger R	1	
10	8438-012	Tank holder	3	

*No. 2 FB suction tube and No. 3 AJ1 (injector) are not included in the 100FB bucket (8438).

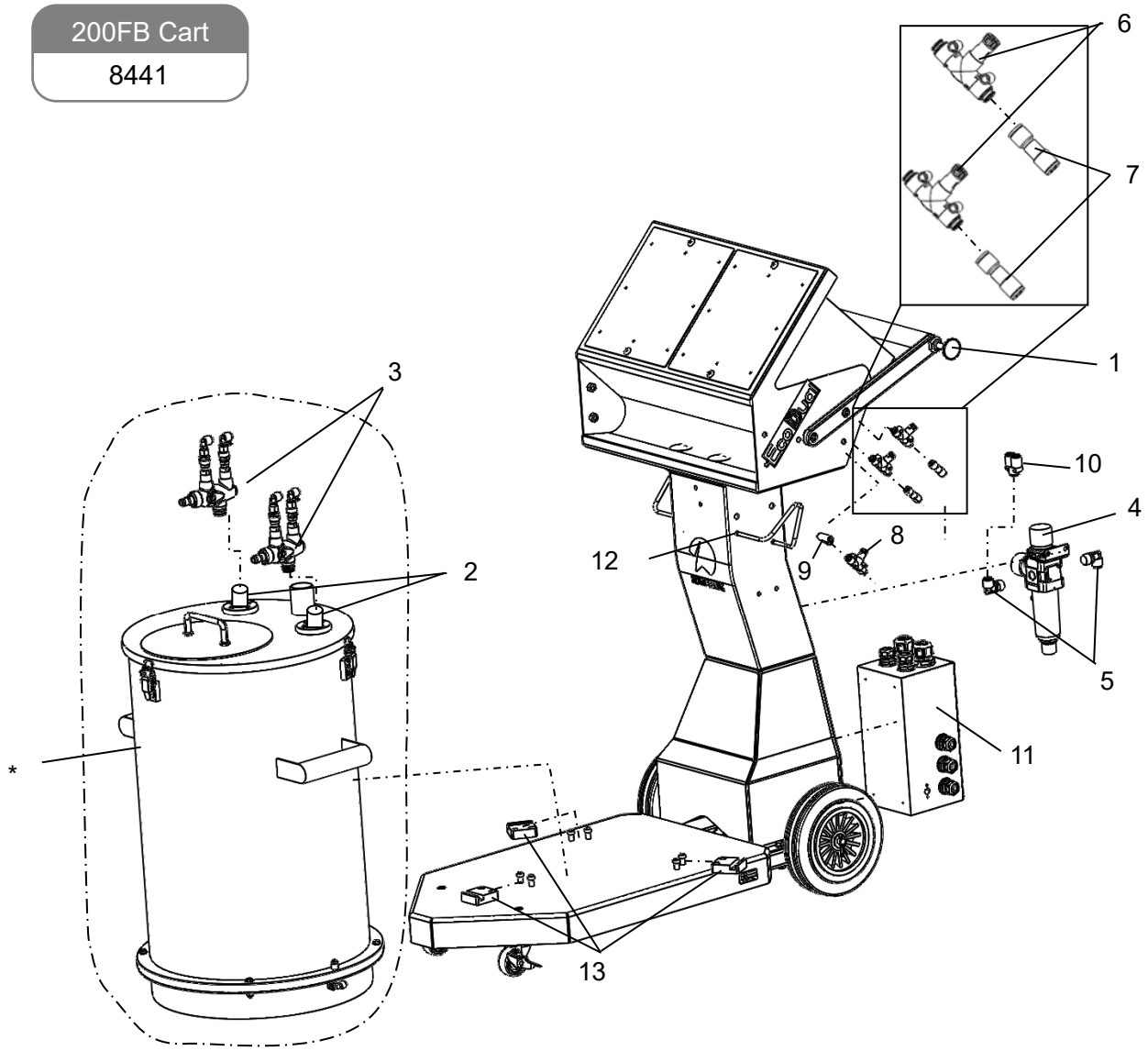
Ground wire

No.	Part No.	Part name	Q'ty	Remark
-	8427-040	Ground wire	1	Between the controller ground terminal and bus bar (*), between the FB tank and bus bar (Φ5 × Φ5 × 1000 L)
-	8436-038	Ground wire	1	Between the bus bar (*) and injector (Φ4 x Φ5 x 2000 L)
-	6612-007	Ground wire	1	Between the bus bar(*) and Class D grounding (Φ5 × mounting bracket × 7000 L)

*For the bus bar, refer to page 8.

11.6 200FB Bucket

200FB Cart
8441



* The tank unit is not included in the configuration.

No.	Part No.	Part name	Q'ty	Remark
1	8436-009	Gun hanger	2	
*2	8445	FB Suction Tube	2	
*3	8435	AJ1 (injector)	2	
4	301-0074	Filter regulator	1	
5	384-1003	Quick joint (elbow)	2	
6	318-0028	Speed controller with dial	2	
7	368-0009	Check valve	2	

No.	Part No.	Part name	Q'ty	Remark
8	318-0027	Speed controller with dial	1	
9	389-0600	Quick joint	1	
10	391-1000	Quick joint	1	
11	8440-015	Relay box	1	
12	8436-011	Hose hanger R	1	
13	8438-012	Tank holder	3	

*No. 2 FB suction tube and No. 3 AJ1 (injector) are not included in the 200FB bucket (8441).

Ground wire

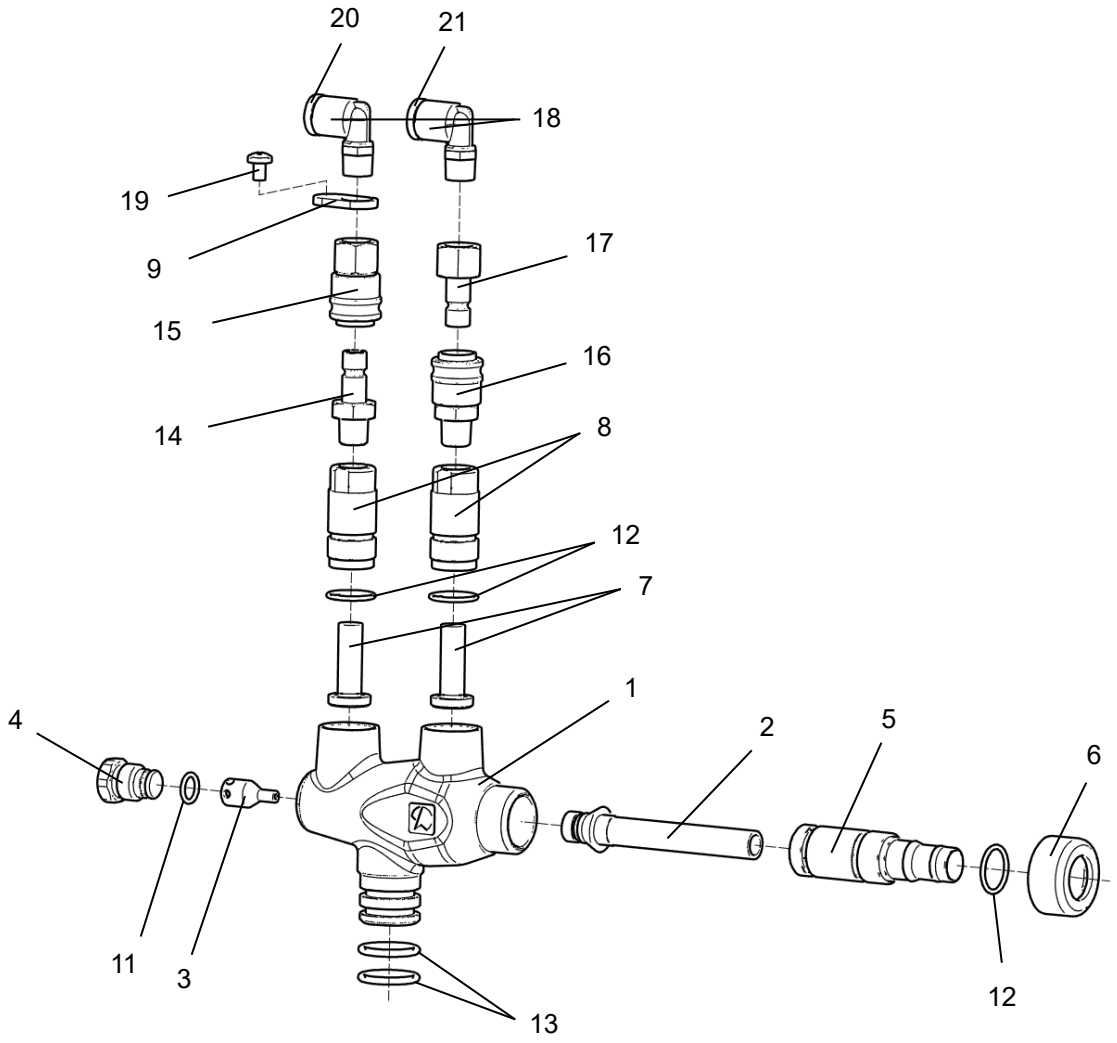
No.	Part No.	Part name	Q'ty	Remark
-	8427-040	Ground wire	2	Between the FB tank and bus bar (*) (Φ5 × Φ5 × 1000 L)
	8436-038	Ground wire	2	Between the bus bar (*) and injector (Φ4 x Φ5 x 2000 L)
-	6612-007	Ground wire	1	Between the bus bar(*) and Class D grounding (Φ5 × mounting bracket × 7000 L)

*For the bus bar, refer to page 8.

11.7 Injector

AJ1

8435



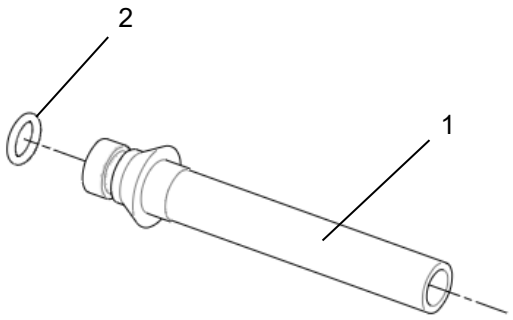
No.	Part No.	Part name	Q'ty	Remark
1	8435-001	Body	1	
2	8435-010	Insert sleeve ASSY	1	w/O-ring
3	8435-003	Injector nozzle	1	
4	8435-004	Nozzle holder	1	
5	8435-005	Hose joint	1	
6	8435-006	Retainer	1	
7	8435-007	Filter	2	
8	8435-008	Filter case	2	
9	8435-009	Ground plate	1	
10	Nil			
11	130-6008	O-ring	1	S8

No.	Part No.	Part name	Q'ty	Remark
12	130-6014	O-ring	3	S14
13	101-6016	O-ring	2	P16
14	348-0048	Plug	1	
15	348-0043	Socket	1	
16	348-0044	Socket	1	
17	348-0047	Plug	1	
18	384-0801	Quick joint	2	D8-R1/8
19	68-10406	Cross recessed panhead screw	1	M4×6L
20	363-0038	Color cap (red)	1	
21	363-0039	Color cap (blue)	1	

11.8 Insert Sleeve ASSY

Insert sleeve ASSY

8435-010



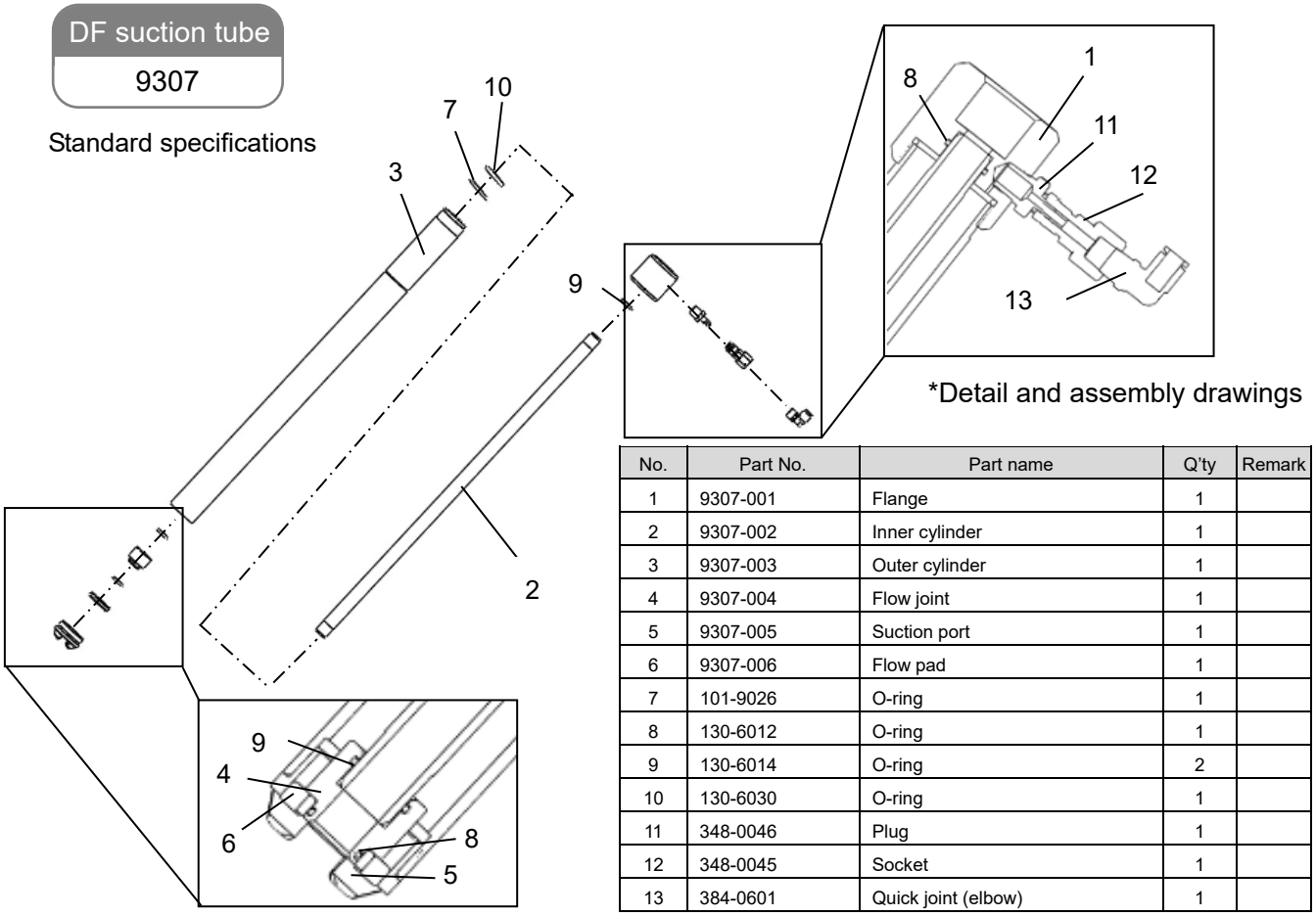
No.	Part No.	Part name	Q'ty	Remark
1	8435-002	Insert sleeve	1	
2	130-6007	O-ring	1	S7

11.9 DF Suction Tube (DF Specification Only)

DF suction tube

9307

Standard specifications



*Detail and assembly drawings

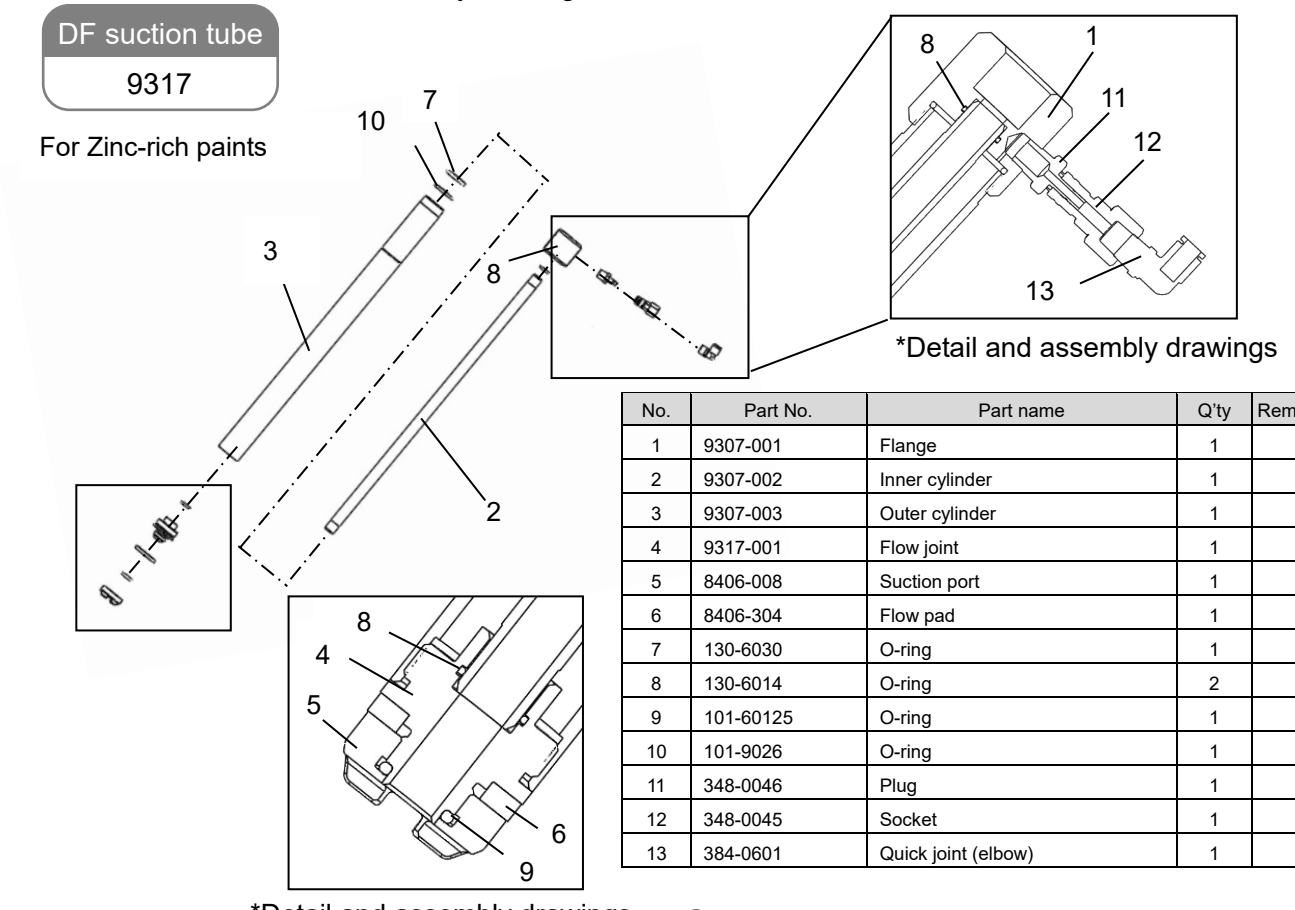
*Detail and assembly drawings

No.	Part No.	Part name	Q'ty	Remark
1	9307-001	Flange	1	
2	9307-002	Inner cylinder	1	
3	9307-003	Outer cylinder	1	
4	9307-004	Flow joint	1	
5	9307-005	Suction port	1	
6	9307-006	Flow pad	1	
7	101-9026	O-ring	1	
8	130-6012	O-ring	1	
9	130-6014	O-ring	2	
10	130-6030	O-ring	1	
11	348-0046	Plug	1	
12	348-0045	Socket	1	
13	384-0601	Quick joint (elbow)	1	

DF suction tube

9317

For Zinc-rich paints



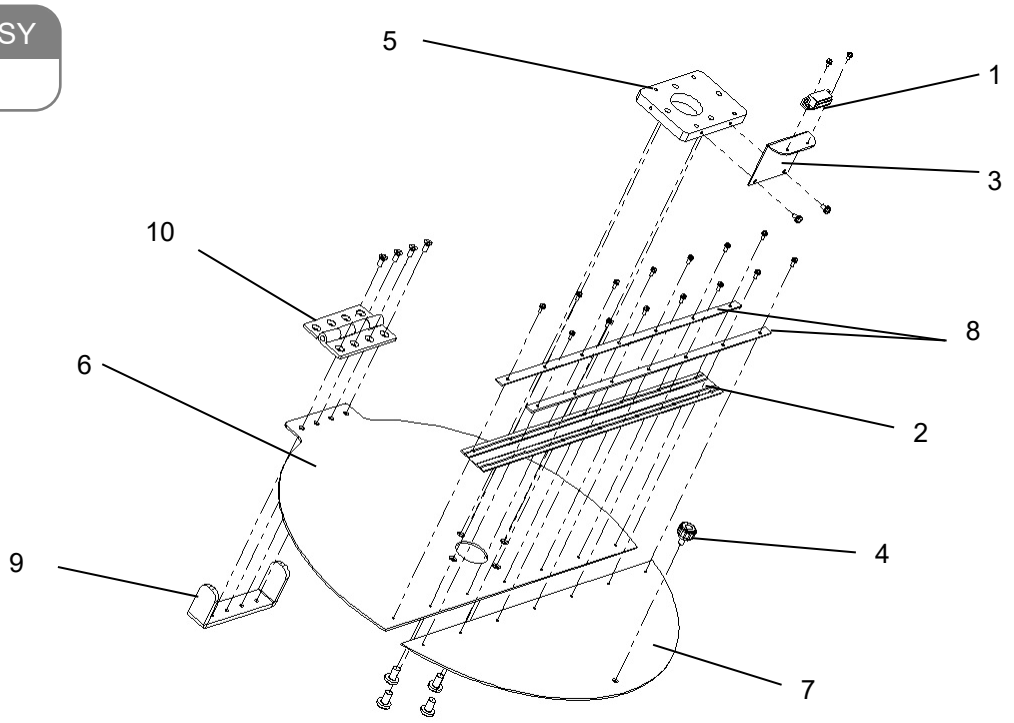
*Detail and assembly drawings

*Detail and assembly drawings

No.	Part No.	Part name	Q'ty	Remark
1	9307-001	Flange	1	
2	9307-002	Inner cylinder	1	
3	9307-003	Outer cylinder	1	
4	9317-001	Flow joint	1	
5	8406-008	Suction port	1	
6	8406-304	Flow pad	1	
7	130-6030	O-ring	1	
8	130-6014	O-ring	2	
9	101-60125	O-ring	1	
10	101-9026	O-ring	1	
11	348-0046	Plug	1	
12	348-0045	Socket	1	
13	384-0601	Quick joint (elbow)	1	

11.10 Canopy ASSY

Canopy ASSY
8209

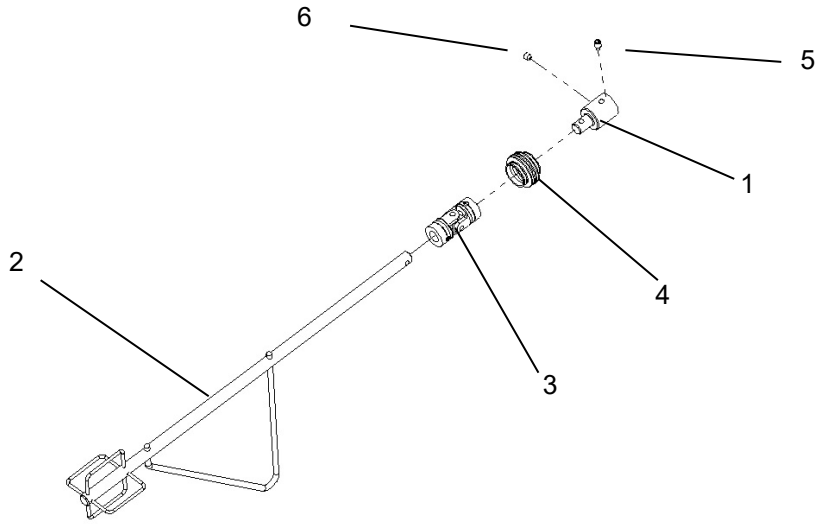


No.	Part No.	Part name	Q'ty	Remark
1	323-0056	Magnet catch	1	
2	8403-002-08	Rubber hinge	1	
3	8208-006	Magnet catch bracket	1	
4	322-0064	Dimple knob	1	
5	8208-005	Motor base	1	

No.	Part No.	Part name	Q'ty	Remark
6	8209-001	Canopy A	1	
7	8209-002	Canopy B	1	
8	8209-004	Hinge holding plate	2	
9	8209-007	Stopper	1	
10	323-0055	Flat hinge	1	

11.11 Stirring Rod Assembly

Stirring rod
8418-002

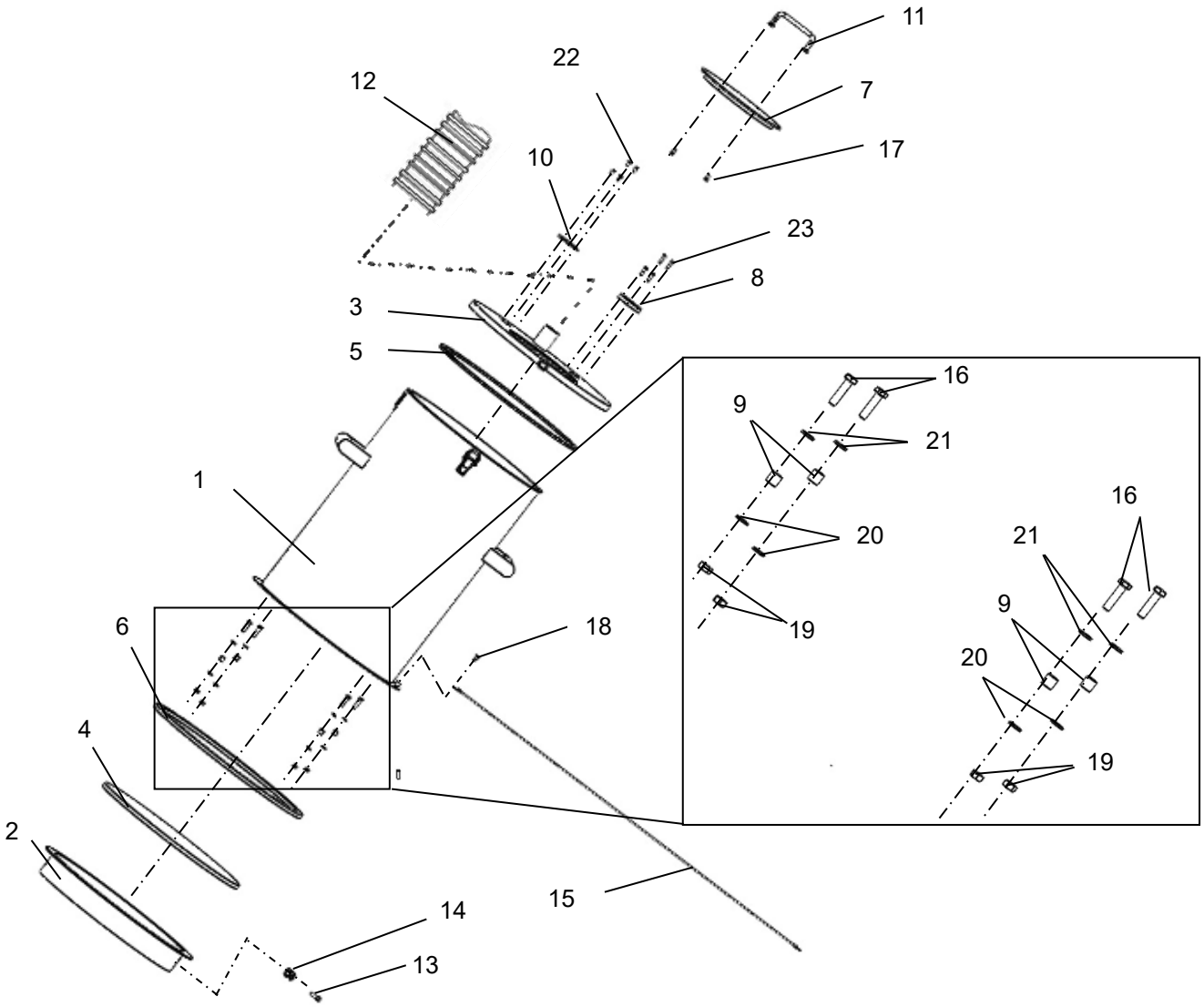


No.	Part No.	Part name	Q'ty	Remark
1	8418-002-01	Shaft	1	
2	8403-003-02	Stirring bar	1	
3	8403-003-03	Universal joint	1	

No.	Part No.	Part name	Q'ty	Remark
4	8403-003-04	Rubber cover	1	
5	76-50610	Hex. socket head cap screws	1	
6	86-50606	Hex. socket head cap screws	1	

11.12 FB-Tank Unit (for 100FB)

FB-Tank Unit
8444



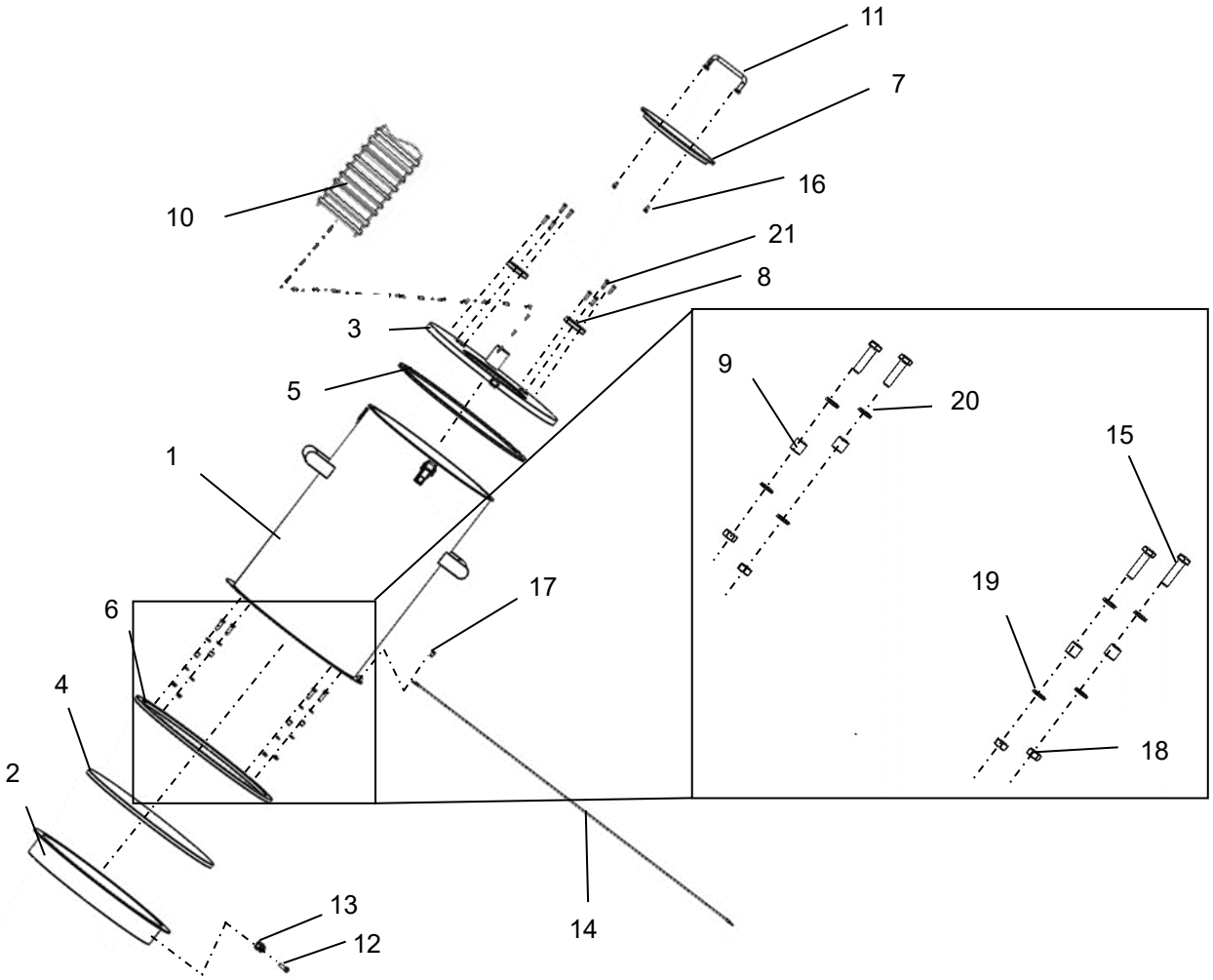
No.	Part No.	Part name	Q'ty	Remark
1	8444-001	Body	1	
2	8444-002	Lower lid	1	
3	8444-003	Upper lid	1	
4	8444-004	Porous plate	1	
5	8444-005	Sheet packing	1	
6	8444-006	Sheet packing	1	
7	8444-007	Lid	1	
8	8444-008	Washer	1	
9	8444-009	Color	4	
10	8444-010	Plate	1	
11	8407-004-3	Handle	1	
12	645-0000	Duct hose	3	3 m

No.	Part No.	Part name	Q'ty	Remark
13	342-0178	Quick joint	1	
14	374-0601	Bulkhead female union	1	
15	8427-040	Ground wire	1	
16	01-10630	Hex. bolt	4	M6×25L
17	03-80510	Hex. socket head cap screw	2	M5×10L
18	12-10510	Screw with 2 washers	1	M5×10L
19	15-10600	Hexagon nut	4	M6
20	37-10600	Flat washer	4	M6
21	41-80600	Spring washer	4	M6
22	68-10410	Cross recessed panhead screw	4	M4×10L
23	68-10420	Cross recessed panhead screw	4	M4×20L

11.13 FB-Tank Unit (for 200FB)

FB-Tank Unit

8444-1



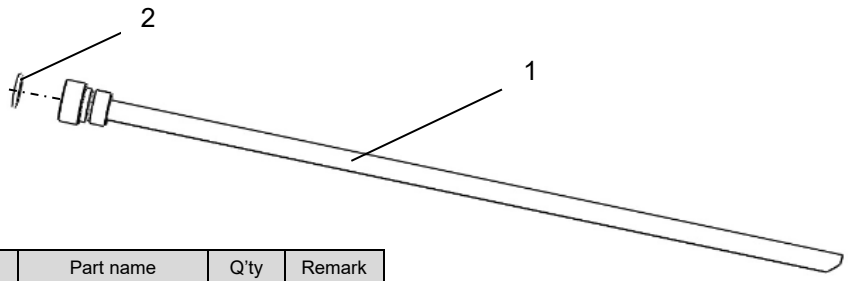
No.	Part No.	Part name	Q'ty	Remark
1	8444-001	Body	1	
2	8444-002	Lower lid	1	
3	8444-003	Upper lid	1	
4	8444-004	Porous plate	1	
5	8444-005	Sheet packing	1	
6	8444-006	Sheet packing	1	
7	8444-007	Lid	1	
8	8444-008	Washer	2	
9	8444-009	Color	4	
10	645-0000	Duct hose	3	3 m
11	8407-004-3	Handle	1	

No.	Part No.	Part name	Q'ty	Remark
12	342-0178	Quick joint	1	
13	374-0601	Bulkhead female union	1	
14	8427-040	Ground wire	1	
15	01-10630	Hex. bolt	4	M6×25L
16	03-80510	Hex. socket head cap screw	2	M5×10L
17	12-10510	Screw with 2 washers	1	M5×10L
18	15-10600	Hexagon nut	4	M6
19	37-10600	Flat washer	4	M6
20	41-80600	Spring washer	4	M6
21	68-10420	Cross recessed panhead screw	8	M4×20L

11.14 FB Suction Tube

FB Suction Tube ASSY

8445



No.	Part No.	Part name	Q'ty	Remark
1	8445-001	Suction Tube ASSY	1	
2	101-9020	O-ring	1	P20

12 Maintenance Log

Please use record the details that you conduct a maintenance service, such as replacement of a part, tear-down cleaning, post-failure repair, etc.

Equipment name			Dual electric field type powder handgun unit <AXR II Series>		Purchase date:	
Date of service			Portion worked on	Description	Result	Who serviced
						In-house / Dealer / Asahi Sunac
						In-house / Dealer / Asahi Sunac
						In-house / Dealer / Asahi Sunac
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						In-house / Dealer / Asahi Sunac
						In-house / Dealer / Asahi Sunac
						In-house / Dealer / Asahi Sunac

Note: Due to continuous improvements and modifications, the configurations specified herein are subject to change without prior notice.

13 Warranty

ASAHI SUNAC CORPORATION (the “Company”) shall provide the original purchaser (the “Purchaser”) with warranty service for a period of one (1) year from the date of purchase of the product, as follows:

- Should you find defects in design or workmanship with regard to parts, ship them back to the Company, with freight prepaid. The Company shall repair or replace the parts free of charge and reimburse the freight charges, provided that, as a result of an inspection and investigation of the parts conducted by the Company, the defects are deemed to be to attributable to the factors within the Company’s responsibility.

- In the following cases, free after-sales service is not provided.

  1. Failure resulting from an inappropriate method of installing this equipment.
  2. Failure resulting from a use method not conforming to this instruction manual or mishandling.
  3. Failure resulting from insufficient maintenance management of this equipment and incorrect handling such as non-conformance to the procedures specified in this instruction manual.
  4. Failure resulting from unauthorized alteration or structure change of this equipment without the Company’s consent.
  5. Failure due to force majeure such as earthquake, disaster, flood disaster or lightening.
  6. Warranty for consumables worn or deteriorated even in the case where this equipment is used correctly.
  7. Repair after the machine has been used outside Japan, and shipping cost.
  8. In addition to the above, failure due to circumstances beyond our control.

- As for items such as parts purchased by the Company from another manufacturer, the warranty of that manufacturer shall apply.

- As for any parts deemed to be defective, the Company shall not be held liable for any expenses beyond the provision of repair or replacement parts free of charge.

- The Company shall not be held liable for any damage to the Purchaser caused by factors not attributable to the Company, such as misuse of product, etc.

【MEMO】

●When a transfer of title of this equipment takes place, please see to it that this Operation and Maintenance Manual is handed over to the new owner.

●This equipment is manufactured in compliance with the Laws and Regulations of Japan.
In the rare eventuality of this equipment being used outside Japan, compliance with the safety standards of the relevant countries is of course mandatory.

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ASAHI SUNAC CORPORATION

HEAD OFFICE
5050, SHINDENBORA, ASAHIMAE-CHO,
OWARIASAHI, AICHI PREF. 488-0852, JAPAN
PHONE +81-561-52-0717 FAX +81-561-54-8847

URL : www.sunac.co.jp
E-mail : ctrd01@sunac.co.jp

Sales office

English Chinese

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